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House & Home

November 1956

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ROUNDUP

Has the slump in starts lost its momentum?

Executive Vice President Norman Strunk of the US Savings & Loan League says it has. "Forces that caused a 17% decline in starts this year have almost spent themselves," Strunk contends. "The industry will be ready in the next few months to climb the hill." NAHB President Joe Haverstick, only a few days after a Washington huddle of builder-leaders was airing the blues, had this note of optimism: "Fall and early winter sales will be the best so far this year." But Haverstick still thinks starts will drop some more before they rise again.

What irritates builders most: no other segment of the economy finds it so hard to compete for money as VA and FHA mortgages—normally half of new housing (see p. 49). Automen note happily that installment credit will be no obstacle to auto sales, even in this very tight money market.

THIS MONTH'S NEWS

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The managed-economy case for keeping the lid on housing

Now, the argument is being made that keeping housing as a contra-cyclical industry isn't a bad idea and frozen FHA and VA interest rates are a pretty good way to make sure housing cannot boom when the rest of the economy booms.

Business Week editorializes: "It's hard to make a good case for drastic action to ease mortgage credit. . . . A sizable increase in housing's demand for materials and labor might add to inflationary pressures. . . . Since our present policy has worked so well—witness, for example, housing's strong sustaining role during the 1948-1949 and 1953-54 recessions—we think there's a lot to be said for keeping it—until it can be shown that the policy . . . is leading to serious and lasting trouble."

VA-FHA offices recognize discounts in appraisals, lenders say

MORTGAGE INSIDELIGHTS: Mortgage bankers agree that VA in many areas, FHA in a few, are allowing generously for discounts in their valuations. Where such allowances are made, builders are staying in FHA-VA programs. Where they aren't many builders are turning to conventional financing or even shutting down until the money market eases. . . . Some Detroit mortgage bankers now hold back 10 points from a builder on closing until an investor picks up the mortgage and the deal is finalized. . . . Most mortgage bankers now require a proviso that the mortgage will be written at highest legal interest rate at time of closing, not at time the contract is signed—hoping FHA-VA interest rate is increased meanwhile.

Builder Joe Eichler's thoughts on the changing house market

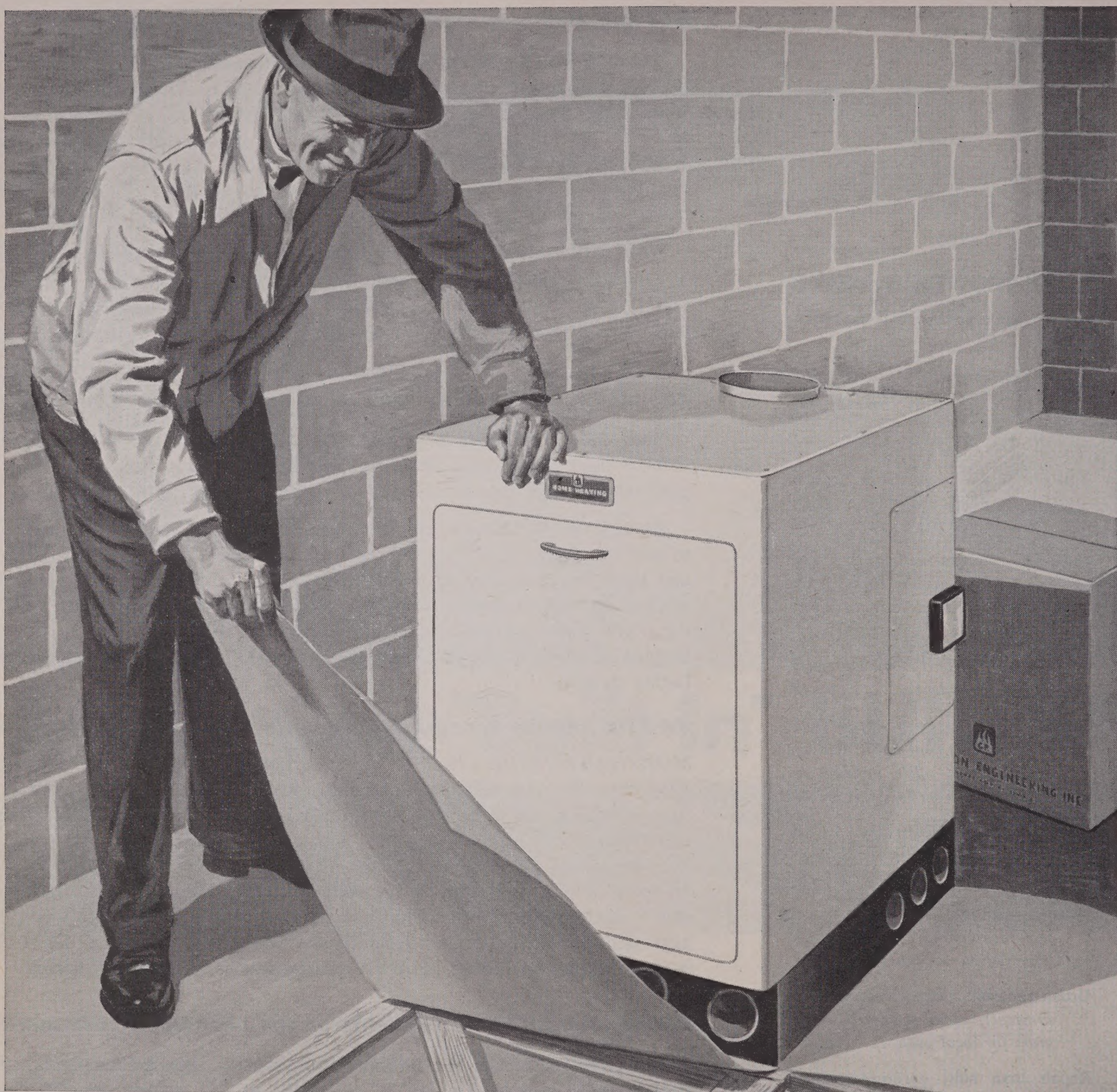
Builder Joseph Eichler of California, whose striking Jones & Emmons experimental steel house is previewed on p. 79, has some equally striking thoughts about the changing nature of the housing market—a changing nature that had a lot to do with why he built the house at all. "The GI loan market," says Vice Pres. Ned Eichler, "is evaporating. With it is going the comfortable backlog of demand for medium priced, quickly built housing. The reduction in GI demand plus rising incomes of American families have made us more and more aware of the demand for quality homes—homes in the \$20,000 price range."

As the Eichlers see it, the potential market that can be tapped with features from so forward-looking a house as his X-100 consists of at least two new groups: 1) a sophisticated white collar class that has so far refused to budge from city apartments for the kind of houses most builders put up and 2) second-time buyers who are tired of what Eichler calls "anonymous tract houses."

FHA rules for 220 require 3% equity

FHA has decided to allow full 10% profit allowance Congress directed on Sec. 220 mortgages (urban renewal housing). But the agency will also require a permanent 3% cash equity investment from sponsors. Builders say the second rule undoes all the incentive created by the first one. Replies FHA: necessary to insure "integrity."

NEWS continued on p. 42



Ready for immediate installation

Packaged Heatmaster heating unit is easily the best way to winterize a home!

C-E has designed this small gas fired home heating unit for use with any type of hot water radiation. It is shipped as a *completely assembled* boiler—absolutely no on-the-job assembly is required! Occupies

only four square feet of space. Can be installed almost anywhere in the house. Approved for use on combustible flooring too!

Pre-engineered and packaged

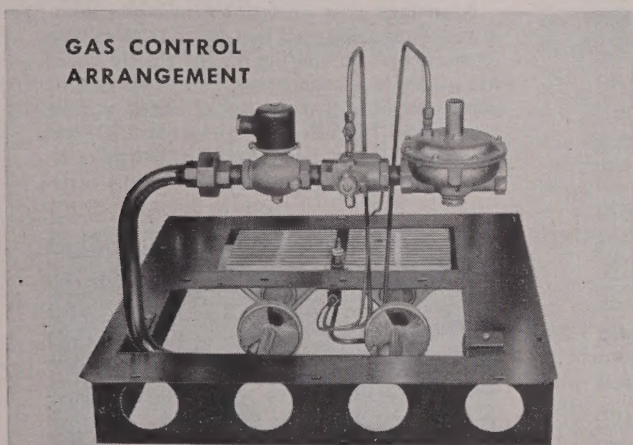
Simple gas and water connections to boiler are made external to the unit. No assembly or connections necessary to be made within the cabinet. All operating parts are in place for easy installation. Every C-E Home Heating unit is equipped with

these standard furnishings: Circulator, expansion tank, gas regulator, gas automatic pilot and safety valve, gas flue diverter (draft hood), control relay, gas control valve (solenoid), tube brush, temperature, pressure and altitude gauge, drain valve, manual air vent and complete internal wiring and piping ready for system hookup.

Patented features

C-E's patented aluminized steel burners are designed for use with all domestic gas fuels. The gas control arrangement, consisting of gas pressure regulator, automatic safety cut-off and solenoid is in place and is readily accessible for easy servicing.

The boiler heating surface consists of 92 feet of 1" steel tubing. Tubing is bent by C-E's exclusive process and welded in accordance with ASME code.

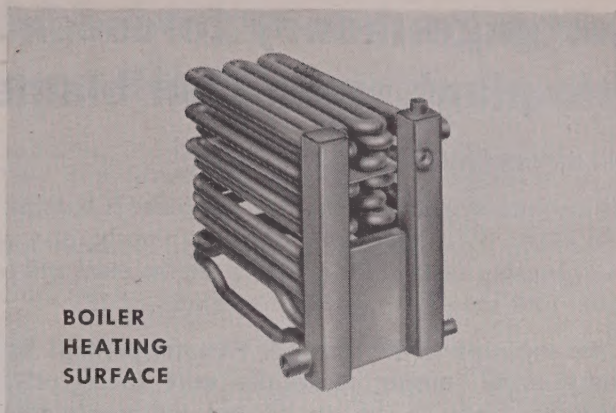


**GAS CONTROL
ARRANGEMENT**

Small radius bends and compact tube arrangement make for maximum transfer of heat to water. Small water volume of the C-E boiler (approximately 3 gallons) provides efficient utilization of fuel and practically instantaneous response to heating demands.

Add air conditioning

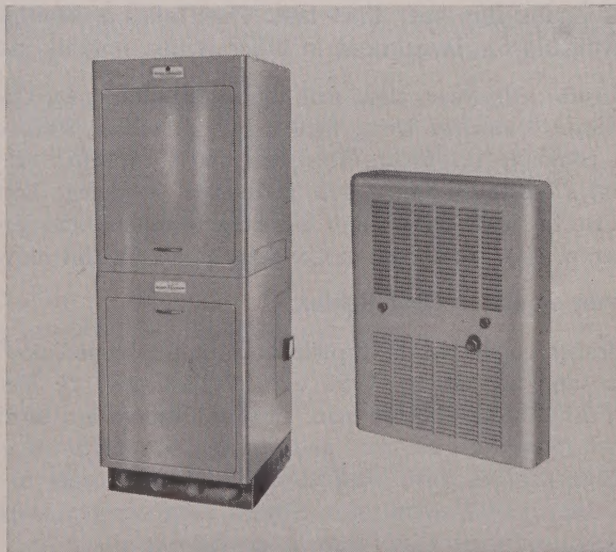
Homeowners desiring the comfort of air conditioning can add a chiller unit to the system at a later date. The boiler is specifically designed for this addition. If C-E room convectors are used and piping properly insulated with original heating installation, the summer air conditioning can be accomplished by simple interconnections between boiler and chiller units.



**BOILER
HEATING
SURFACE**

About C-E

The C-E domestic home heating unit is built by Combustion Engineering, one of the world's largest manufacturers of steam generating equipment, with 70 years experience and "know how." Combustion Engineering is currently designing a steam generator for the Philadelphia Electric Company power station which will be the most efficient station in the world. This C-E steam generating equipment is being designed for 6000 psi to produce steam at 1200°F. This will be the highest pressure and temperature ever projected for utility stations. This is an example of the kind of work that typifies the company behind the C-E home heating unit.



Take advantage of the many benefits C-E Heatmaster Home Heating and Air Conditioning offers by sending for more information now.



HEATMASTER

The easiest way to winterize a home

COMBUSTION ENGINEERING INC., Home Equipment Division, 911 West Main Street, Chattanooga 1, Tennessee

MORTGAGE MARKET:

Tight mortgage money foreseen for 6 months; plant expansion blamed

Q. How long will the mortgage drought last?

A. Not just until the interest rate on FHA and VA loans is boosted—as now seems likely—from 4½ to 5%. Mortgage money will probably stay scarce and expensive until the whopping demand for money to finance plant and equipment expansion dwindles. That should be at least six months.

Congress can be expected to increase the VA rate, perhaps as early as the end of January, many housing spokesmen were saying privately last month. FHA already has power to raise its interest, but government housing chiefs apparently have ruled out solo action by FHA.

Demand by industry groups for a VA-rate boost is growing. The Natl. Lumber Mfrs. Assn. has come out flatly for flexible mortgage rates—long urged by mortgage bankers (see p. 47). NAREB President Clarence M. Turley says it is “virtually certain” that the nation’s organized realtors will endorse a rate hike this month. NAHB President Joe Haverstick concedes there “may be no alternative but to ask for an interest rate increase.” HHFA Administrator Albert M. Cole, in his talk to NAHB directors in Boston, virtually suggested that NAHB bring in such a proposal. (So far, NAHB policy is noncommittal.)

Whether a rate boost to 5% will be enough to start money flowing into FHAs and VAs in quantity is a question. Many a mortgage banker argues 5¼ or 5½% is necessary now to make the yield after servicing competitive with other investments (i.e. about 4.6 to 4.7%). Some think FHA may tack a service charge on top of a 5% rate, if that is all Congress will permit for VAs.

Plant and equipment expansion, economists figure, will sop up \$4 billion more of lenders’ funds this year than last. That takes a whopping slice out of money available for investment in other items, notably mortgages.

Here are the figures: last year, plant and equipment outlays by US industry ran to \$28.7 billion. Commerce Dept. figures indicate about 33% of it was financed outside company resources. This year, it is expected to zoom to \$35.3 billion and Commerce says 38% is outside financing. Some home builders blame fast tax-write-off for the big bulge, contend the government should stop it (see p. 49). Sentiment in Congress grows for this move.

Mortgage money is still getting tighter.

Many big insurance companies have pulled out of the immediate VA-FHA market altogether and are cutting 1957 quotas drastically. “I don’t blame them,” says an East Coast mortgage man. Instead, lenders are turning more to industrial issues rated “just as safe” and yielding 5¼ to 5½%. So more and more mortgage bankers have stopped issuing commitments to builders, except at Fanny May prices. Some of the latter even carry a loophole that if anything happens to Fanny May, there is no deal at all.

A few mortgage men view the withdrawal of insurance companies as an informal “sitdown strike to force the government to raise FHA and VA interest.” Others argue that “this enforced leveling off is good business” because it will wipe out threatened overbuilding, creating a better sales market when money eventually eases.

Mid-September moves by the White House to ease mortgage credit have been no help—and won’t be.

The Home Loan Bank has noted no increase in advances since raising the ceiling for borrowing from 10 to 12½% of assets. Moreover, S&L men say the board has been quietly working to keep the lid on borrowing.

Fanny May experienced a spurt in immediate purchase offerings after it cut the stock purchase requirement from 2 to 1%. Offerings reached \$35 million a week, but then slid—to \$30 million, then to \$25 million a week. The agency rejects about 15% of offerings. President Stanley Baughman says he has enough borrowing authority to last until March.

New ‘help’ for mortgage pinch no help to builders

The administration’s second move billed as help for the mortgage pinch looks as inconsequential as the first one.

The White House—apparently mindful of the impending election—announced a slight expansion of VA direct lending:

1. In 130 counties which have been sliced from the direct lending list entirely and 250 more partly removed, VA will restudy the situation to see whether direct loans should be restored. The White House said ambiguously “certain areas formerly eligible . . . will be reopened.” Even if some counties are returned to direct loan eligibility, private lenders will still get first crack under VHMCP.

2. Direct loans were authorized in eligible areas when private VA loans are available only on “restrictive credit terms,” said the White House. VA translation: areas where, for example, lenders under VHMCP insist on 10% down.

Nine days later, President Eisenhower authorized Fanny May to buy up to \$20 million of mortgages on housing for the elderly under its special assistance program. This means comparatively unmarketable aged-housing loans under FHA Sec. 203 (b) or Sec. 207 can be sold to Fanny May for 99, although regular mortgages may bring several points less.

Pics, Chicago



SWEENEY, COLE AND MASON

Federal housing chiefs take the word to industry

The Big Three of federal housing—HHFA Boss Albert M. Cole, FHA Boss Norman Mason and VA Loan Guaranty Chief Tom Sweeney—shuttled across the eastern half of the country to tell about the same story to every industry group.

COLE

“The Fed is doing a good job of stabilizing money.” But the steps the administration took to ease mortgage lending in September “do not really meet the needs of home builders today.”

MASON

Acknowledged that NAHB’s FHA committee had made an “excellent and forceful” pitch that FHA should allow for the cost of money in its valuations and recognized that sales expense has gone up. But he hinted strongly that FHA would turn both suggestions down.

SWEENEY

“Don’t anticipate any extension of VA loans for World War 2 veterans by the coming Congress.” Between 1 million and 1.1 million new dwellings “can be marketed in 1957.”

On discounts: “Get your relief from Congress. We’ve been urged to take a realistic view of discounts. In essence, the argument runs: the veteran pays it so why not be honest instead of devious?” Sweeney’s answer: Congress “admonished” VA to prevent discounts, so VA must try.

Garment workers to invest \$20 million in VA paper

The biggest investment yet of pension funds in government-backed mortgages has been approved.

The International Ladies Garment Workers Union announced it will put \$20 million (10% of its combined reserves) in VAs now and continue to invest \$5 million a year. The union is considering putting another \$20 million in FHA mortgages followed by \$5 million more a year.

ILGWU President David Dubinsky signed a contract with the Chase-Manhattan Bank to administer the investments. He called the move both profitable and socially useful. He estimated the union will net 4% from the government-backed mortgages compared to 3% from the government bonds ILGWU is selling. Most of the money will be invested in lower priced homes: \$9,000 to \$10,000.

FHA discount drops 0.4; off 0.9 in two months

Prices of FHA Sec. 203 mortgages for immediate delivery on the secondary market dropped 0.4 points in September.

Coupled with a half-point drop in August, average price has now gone down 0.9 points in two months. Average price Oct. 1 was 96.7, compared to 97.1 a month earlier and 97.6 on both Aug. 1 and July 1.

The price drop was general. Biggest plunge was three-fifths of a point in the Southeast. Prices represent an average of reports from FHA's 71 insuring offices, not actual sales.

OFFERING PRICES, FHA 203s
Immediate Delivery

ZONE	Oct. 1, 1956		Sept. 1-Aug. 1	
	AVERAGE	RANGE	AVERAGE	
Northeast	99	95-par	99.5	99.5
Middle Atlantic.	97.3	95.5-98	97.7	98.3
Southeast	96.1	94.8-97.5	96.7	97.1
North Central..	96.6	94-99	97	97.2
Southwest	96.5	95-97.5	96.9	97.3
West	96.8	94-99	97	97.8
United States...	96.7	94-par	97.1	97.6

SAVINGS & LOANS:

Natl. S&L League asks 18 changes to revamp HLBB, widen lending

An 18-point plan calling for major changes in the Home Loan Bank System has been adopted by governors of the Natl. Savings & Loan League.

James E. Bent, president of Hartford (Conn.) Federal S&L Assn. and chairman of a 96-man committee



BENT

that worked two years on the proposals, says they "would go a long way toward breaking the mortgage money squeeze that has curtailed home building." Bent adds: "The time has come for the HLBB to widen its sights in line with the tremendous economic expansion since World War 2."

The proposals will be given informally to the Senate banking committee this month as it begins a study of overhauling the nation's banking structure.

Four of them have received wide publicity, based on the 625-member league's announcement of their adoption by its board last month in New York. These advocate:

1. Elimination of selective credit controls over housing. The report says there should be no such credit controls over Federal Home Loan Banks such as the present limit on loans to member S&L's of 12½% of their capital.

If credit restrictions are needed to curb inflation, argues the league, the Federal Reserve should impose them under existing laws. If more brakes are needed to limit housing, they should be imposed simultaneously on all lenders and on VA direct lending.

2. Revocation of the HLBB regulation limiting conventional mortgage lending by S&Ls to a 50-mi. radius from their offices. Such loans—either direct or participating—should be limited to 20% of mortgage portfolios and

be serviced by another (e.g. local) S&L.

3. Adoption by the HLBB of regulations to create facilities for mortgage warehousing from long-term funds and "creation of a secondary market within the HLBB system."

4. Authority for S&Ls to borrow money from pension funds "or similar funds" on a contractual basis "entirely separate" from normal savings procedure. (S&L leaders say the HLBB recently quashed a multi-million loan from pension sources, which S&Ls would have used to expand mortgage lending.)

Stand on conversions

Sweeping as these proposals are, they are no more provocative than some of the others so far unpublished—apparently because New York newsmen, though invited, did not cover the meeting in the Waldorf-Astoria's Starlight Roof room where they were adopted as the three members of the HLBB listened. The most significant:

Urban Renewal: S&Ls should be allowed to make capital investments up to 20% of share capital in land or buildings for slum clearance, rehabilitation, minority housing and other developments "in the interest of community development and public welfare."

Personal loans: S&Ls should be empowered to make personal loans up to \$500 and three years to depositors—up to a limit of 10% of each S&L's savings accounts.

Stocks and bonds: S&Ls should be permitted, subject to rules of the HLBB, to invest in municipal "and other bonds." The league argues that savings banks and many state S&Ls now have this authority, so federal S&Ls should have it, too.

Giveaway promotion: HLBB regulations to limit or restrain competition should be abolished.

continued on p. 47

MORTGAGE MARKET QUOTATIONS

(Sale by originating mortgagee, who retains servicing.)
As reported to HOUSE & HOME the week ending Oct. 13.

FHA 4½/2s (Sec. 203) (b)

City	Minimum down*- 30 year		Minimum down*- 25 year		25 year, 10% down	
	Imme- diate	Future	Imme- diate	Future	Imme- diate	Future
Boston local	par-101d	par-101d	par-101d	par-101d	par-101d	par-101d
Out-of-state	95	95-96	95-96	95-96	95-96	95-96
Chicago	94	a	94-96	94-96	95-97	95
Cleveland	96½	95½-2b	97	95½-2b	a	a
Denver	98-98½-2b	97½-98b	98-98½-2b	97½-98b	97½-99b	97½-99b
Detroit	95-96	95½	96½-2-97½	97	97½-98½	97½
Houston	96	a	96½	a	96½-97	a
Jacksonville	95-95½	a	95-95½	a	96	a
New York	99-par	99-par	99-par	99-par	99-par	99-par
Philadelphia	96	96b	96	96b	98	a
San Francisco	a	a	a	a	c	a
Washington	97½	97b	98	97½-2b	98	97½-2b

*7% down on first \$9,000

SOURCES: Boston, Robert M. Morgan, vice pres., Boston Five Cent Savings Bank; Chicago, Maurice A. Pollak, exec. vice pres., Draper & Kramer, Inc.; Cleveland, William T. Doyle, vice pres., Jay F. Zook, Inc.; Denver, C. A. Bacon, vice pres., Mortgage Investments Co.; Detroit, Stanley M. Earp, pres., Citizens Mortgage Corp.; Houston, Donald McGregor, exec. vice pres., T. J. Bettes Co.; Jacksonville, John D. Yates, vice pres., Stockton, Whatley, Davin & Co.; New York, John Halperin, pres., J. Halperin & Co.; Philadelphia, W. A. Clarke, pres., W. A. Clarke Mortgage Co.; San Francisco, Raymond H. Lapin, pres., Bankers Mortgage Co. of California; Washington, D. C., George W. De Franceaux, pres., Frederick W. Berens, Inc.

VA 4½/2s

City	30 year, 2% down		25 year, 5% down		25 yr. 10% down or more	
	Imme- diate	Future	Imme- diate	Future	Imme- diate	Future
Boston local	par-101d	par-101d	par-101d	par-101d	par-101d	par-101d
Out-of-state	92e-95	94-95	92e-95	94-95	a	a
Chicago	94	a	94-96	94-96	95-97	95
Cleveland	96½	95½-2b	97	95½-2b	a	a
Denver	96½-98b	96-97½-2b	96½-98b	96-97½-2b	97-99b	97-99b
Detroit	94½-95½	95	95½-96½	96	96½-97½	97
Houston	94-95½	a	94½-96	a	96½-97	a
Jacksonville	94½-95	a	94½-95	a	95½-96	a
New York	99-par	99-par	99-par	99-par	99-par	99-par
Philadelphia	96	96b	96	96b	98	a
San Francisco	94	94b	94½-95	a	a	a
Washington	96	95½-2b	97	96½-2b	97½	97b

► Immediate covers loans for delivery up to 3 months; future covers loans for delivery in 3 to 12 months.

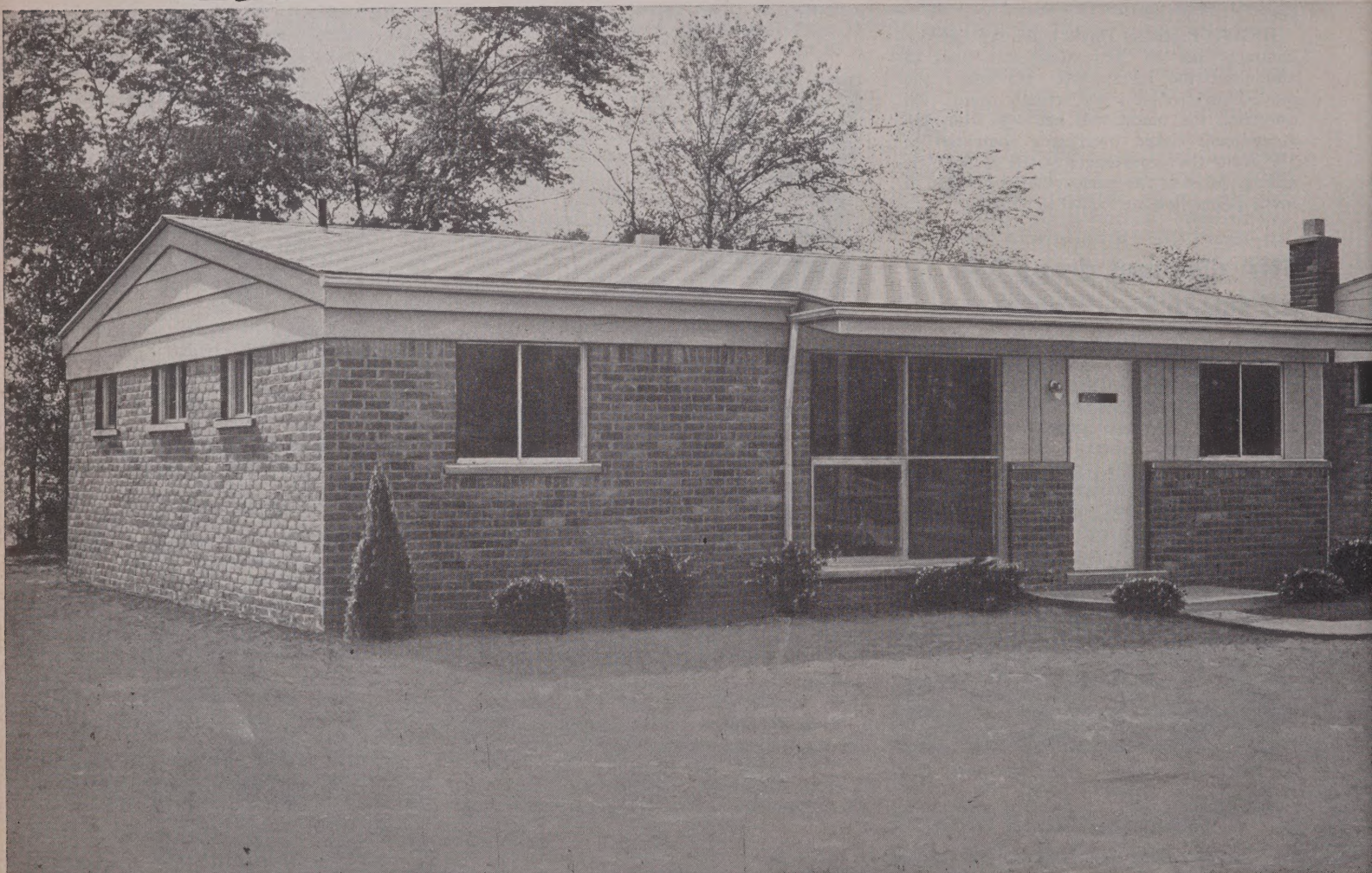
► Quotations refer to prices in metropolitan areas; discounts may run slightly higher in surrounding small towns or rural zones.

► Quotations refer to houses of typical average local quality with respect to design, location and construction.

NOTES: a—no activity. b—very limited market. c—some money available @ 25% down, 15-year term. d—mostly at par with some talk of discounts. e—includes loans over \$15,000, thus ineligible for FNMA.

**Builder of
over 12,000
fine homes**

Edward Rose & Sons



Edward Rose & Sons of Detroit have built over 12,000 fine homes in the past 34 years. They know the features that mean real quality...adding sales appeal while keeping costs down. The firm's founder and board

chairman, Edward Rose, says: "Reynolds Aluminum products never rust, give the homeowner a bonus of important maintenance savings every year. Buyers of Edward Rose homes get a one-year written guar-

antee against construction defects, so lasting quality is essential." And Sheldon Rose, Vice President, says: "We plan right down to the smallest detail. This means even buying *aluminum nails*." The result is the better value these builders advertise... "Builders of the Largest Home for Your Dollar." Write for literature on these home-selling products.

Reynolds Metals Company, Building Products Division, 2019 South Ninth Street, Louisville 1, Kentucky

See "CIRCUS BOY," Reynolds new dramatic adventure series, Sundays, NBC-TV Network.



REYNOLDS

ed, as should "regulations of a public utility nature to control rates." (The HLBB has just banned giveaways costing more than \$2.50 to help lure new savings accounts.)

Liquidity: Existing liquidity requirements (4 to 8%) should be amplified with this additional requirement: 1) 5% of all borrowings due within 18 months, 2) 100% of all escrow (e.g. tax, insurance) accounts held for others, 3) 100% of commitments, including loans in process, in excess of nine times the preceding 12 months average repayment of principal on all mortgage loans, plus or minus the preceding month's net increase or decrease in savings. HLBB currently requires 6% liquidity. But S&Ls can borrow the money. Effect of the proposal would be to require S&Ls to be liquid with their own money.

Conversions: "There should be a workable and practical two-way street between state and federal associations and stock and mutual associations. Conversion procedure should be one that will withstand scrutiny from Congress and the public. Care should be exercised to see that the shareholders are fully and adequately informed and protected as to the fair value of stock resulting from their rights and privileges, if any." The report urged that the HLBB establish a "fair value" of stock in a converting association and that the value be announced in writing to "all parties entitled to stock rights." Added the report: "Reserves of the mutual association should be kept intact upon conversion . . . and not depleted." The recommendations, it said, should apply only to future conversions.

Variable dividends, branches

The league's report also included three proposals of technical significance:

AUTONOMY: Regional Home Loan Banks should have "more autonomy" including "complete freedom of action to provide credit within limits and at rates" they set themselves, subject to liquidity requirements set by Washington. Extraordinary demand for money in one area should be met by local interest rate increases, not rationing of funds.

VARIABLE DIVIDEND RATES: S&Ls should be allowed to set variable dividend rates, provided accounts of the same classification get the same rate. Reason: "in various sections, different types of accounts receive greater competition from outside investments."

BRANCH OFFICES: The HLBB should relax its policy on approving branch S&L offices.

HLBB asks Senate group for more regulatory power

The Home Loan Bank Board wants more power to regulate the savings and loan industry.

It asked the Senate banking committee, which opens a broad study of government financing and credit programs this month, to consider giving it authority to:

1. Look into and regulate relations between member or insured S&Ls and "affiliates." Industry spokesmen say the board is mainly concerned about tie-ins between S&Ls and title and escrow firms on the West Coast.
2. Exercise more control over S&Ls who are not members of the Federal S&L Insurance Corp. Some 800 S&Ls, mostly small ones, belong to the home loan system but not the insurance corporation.
3. Remove officers and directors of S&Ls for serious violations of law or regulations.
4. Regulate conversions from mutual to state-chartered stock S&Ls. Institutions under the board's control now have to make such switches in two jumps, first becoming state-chartered mutuals.

MBA CONVENTION:

Tight money, decreasing starts fail to make mortgage bankers gloomy

A little gloom could have been expected when the Mortgage Bankers Assn. convened in mid-October—but there was none.

Despite tight money and decreasing housing starts, mortgage men seemed so used to crises in the money market that this worst crisis of all failed to upset them.

As one big mortgage banker explained it: "I'm not here to make a deal [for commitments from big lenders]. It's useless to try. I just came to find out what's in the wind."

From convention speakers and from conversations in private suites at Chicago's Conrad Hilton Hotel, this is what he and 3,000 other MBA members learned:

1. Most large institutional lenders have virtually withdrawn from the FHA-VA mortgage market and intend to stay out until yield is improved through a higher interest rate.

2. There will be no FHA-VA interest rate increase, at least, until Congress convenes in January and can raise the fixed VA rate. Best bet: a hike to 5% with a chance for 5½%. The flexible rate long sought by MBA looks like a political impossibility.

3. The mortgage market will get tighter before it eases. And even if the FHA-VA interest rate is increased, mortgage money will remain scarce in the first half of 1957.

Unlike NAHB directors who cried that the administration's tight money policy is crippling home building, mortgage bankers seemed overwhelmingly in favor of credit restraints against inflation—though regretful of what it is doing to home building.

They applauded as Under Secretary of the Treasury W. Randolph Burgess defended the restraints as a blessing in disguise for home buyers. Said Burgess: "Lower interest charges do the home-buyer little good if inflation raises the cost of homes. For example, an increase of only 8% in building costs would cost the home buyer with a \$10,000 mortgage twice as much over a 25 year period as the cost of an interest rate rise from 4½% to 5%. What is true for the home buyer is true for the businessman as well."

Bread & butter backlog

Lack of concern among mortgage men was not difficult to understand. Most have big servicing portfolios. Big FHA-VA originators who have turned to Fanny May reported happily that offerings are being processed within 10 days. "They're doing a wonderful job," glowed a Southern mortgage banker.

MBA's pitch for a flexible FHA-VA interest rate was made by outgoing MBA President Lindell Peterson.

Said he: "It is clear everywhere that the penalty for controlling rates is the diversion of funds from the controlled area whenever the fixed rate is below the market rate. . . . The ideas that certain classes of borrowers have a right to a lower interest rate than others and that the insurance or guarantee was more than a means for obtaining easy terms as to down payment and maturity is really of recent development. But they have become fixed ideas which the starkest of facts have not uprooted."

Peterson disclosed that he had written to all members of the Senate and House, asking their support of his flexible interest plan. Of 225 replies received to that time, most said they would study the suggestion, a few said they liked it, a few said they opposed it.

Pics Chicago



Welcome to Chicago is extended by local MBA President John R. Womer (l) as MBA convention opens. With him are (l to r) Dr. Arthur A. Smith, vice president of the First National Bank of Dallas, Under Secretary of the Treasury W. Randolph Burgess and outgoing MBA President Lindell Peterson.

One of the letters was forwarded by Sen. Barry Goldwater (R, Ariz.) to Fed Chairman William McChesney Martin who replied: "[Peterson's] basic suggestion that Congress should give consideration to providing greater flexibility in the rates on FHA-insured and VA-guaranteed mortgages, is a constructive one."

Following Peterson to the rostrum, President Clarence Turley of NAREB told the convention that he is confident NAREB will endorse flexible FHA and VA interest rates at its St. Louis convention this month.

Is public housing rifling the till?

Turley bitterly attacked the sale of public housing authority bonds in competition with mortgage investments: "Over \$2,175,000,000 of these income tax free bonds have been placed on the market. . . . The latest offering in June was an issue in excess of \$91 million at an average interest cost of 2.4867%. For a corporate investor subject to 52% income tax, this is the equivalent of 4.782% in comparison with a mortgage loan subject to income tax.

"This is wrong. It tends to reduce the available supply of funds for mortgage lending and other investments."

The bad news on the interest rate was brought to the convention by HHFA Administrator Albert M. Cole and FHA Commissioner Norman Mason. Said Cole: "Right now I cannot foresee any action on FHA and VA interest rates. I do not believe we could do anything about one of them without doing something about the other. Only Congress can take the kind of action that would be equitable."

Added Mason caustically: "We have had no assurance from anyone that an increase in the interest rate would cause any more cash to be in circulation or insure more cash for home mortgage loans."

Thomas J. Sweeney, VA's loan guaranty chief, did not entirely agree. He said: "[An interest rate increase] would divert a larger portion of the existing supply [of money] into GI loans at the expense of other competitive investment needs."

MBA elected John F. Austin Jr. its 1957 president (see p. 83). He is president of T. J. Bettes Co. of Houston, largest US mortgage banking firm. New vice president is John C. Hall, president of Cobbs, Allen & Hall of Birmingham, Ala. *NEWS continued on p. 49*

Distributors And Builders To Double Profits With Revived Tile Industry

SAN ANTONIO — Today, you would expect an industrial revolution to use something like atomic energy and cost billions. But it seems that good engineering and careful planning can still change an old industry without atomic power and at very little cost. Empress Bricktile Co., a division of Felder Engineering of this city, announced recently a series of major developments to revive the use of unglazed flat ceramic tiles for lightweight masonry veneering of homes at a new economy price. History reveals that the ceramic tile industry lost this veneering market about 1500 years ago when the price started skyrocketing. The old square shape of the tile has been modernized to a rectangular brick-face shape. The new size is $2\frac{1}{4}$ inches by 8 inches. The new thickness is a double strength $\frac{3}{4}$ inch. The surface is not glazed and the natural fired clay color goes all the way through the tile. In fact, the exposed surface looks the same as a modern brick; so it is called a "bricktile".

The basis for the new economy of this old product is a development that uses the existing facilities of the clay brick industry. This represents \$750,000,000.00 saving in new capital investment that would be required if existing equipment and services could not be used. The Empress firm is arranging to buy the total "bricktile" output of the leading clay brick firms who are to be licensed to produce a regular size brick unit ($2\frac{1}{4} \times 3\frac{3}{4} \times 8$) that is actually five "bricktiles" sandwiched together into a single "clay-bonded" brick. It seems that the Empress people furnish each brick plant with a simple device that converts the normal brickmaking operation into a tile-making operation. Yet the brick plant is actually making regular size bricks that will be converted into tiles after shipment. Each brick manufacturer is said to make about \$9.00/M bricks more net profit than normal from this cash-before-delivery operation. Looks like a mutually beneficial arrangement.

Since the tiles are shipped in the form of regular size bricks, the Empress firm plans to use the existing regular brick distributors who are experienced in this line and have the required facilities. The exclusive distributors are said to make \$10.00/M instead of the present \$5.00/M. The only change in the present brick distribution setup is that the distributors are to be true wholesalers and sell only to their licensed dealers. As each clay-bonded brick will eventually become five wall tiles, it is claimed that coast to coast shipments can be made for less than 8 cents per square foot of completed wall area. The freight cost will be 1/5th that of ordinary brick.

Mr. Lawson Felder, President of the Empress firm, states that they have devoted 7 years to improving and lowering the construction cost of ceramic tile veneering.

He said that his firm's tiles can be applied to a surface by the present tile-setting methods and also by his new method called "dry-wall positive anchoring" that gives guaranteed crackproof construction. He went on to say that regular brick veneer itself is low cost; but the heavy weight of the bricks requires heavy construction to carry the load and makes the total cost high. His firm's tile veneer will have the same in-the-wall price as regular brick, without the heavy construction cost. This is an advantage for the architects and builders who are usually required to pay a premium price for lightweight masonry.

As ceramic tile veneer construction is not new, the firm plans to use existing experienced brick and tile contractors for licensed exclusive dealer-contractors. A further source will be those reliable contractors who are now promoting the many imitation lightweight masonry veneers that will soon lose their market. Mr. Felder states that these skilled craftsmen have the experience required for his firm's ceramic tile construction. He also stated that licensed dealer-contractors will make 33% profit on completed construction for builders. To guarantee the quality of construction, only licensed contractors will do the work. It is at the final job-site that each clay-bonded brick is parted into five bricktiles for the ceramic tile veneering.

This industrial revolution shows careful planning. Getting away from the high costs of the old specialized ceramic tile industry is a good basis for the Empress firm's bid for success. Builders and home-owners will have to wait until spring, 1957, for this economical ceramic tile veneering. Then, the Empress firm will launch an extensive national program to make this construction available to the building industry on a national scale. It is possible for the entire building industry to double profits with this revival of a historic quality product.

At this time, additional information is being given out only to Venture Capitalists, Brick Producers, Distributors and Dealer-contractors who might want to join in this new revived industry as independent associates having exclusive territories. Please ask specific questions about the part of the program that you are most interested in. We will need some of your background data so that your questions can be answered intelligently. A number of choice distributorships are still available.

Architects, Engineers and Builders will receive information, samples, etc. from regional Distributors as soon as licenses are granted. A full color illustrated brochure will soon be available.

HOUSING MARKET:

NAHB directors hear cry for halting 'inflationary' federal construction

You could see the effects of the buyer's market and the mortgage crisis in the way NAHB directors went about their fall meeting in Boston last month.

For one thing, mortgage money wasn't to be found in that normally surplus money pool—at least not at prices builders wanted to pay. Even inside Massachusetts discounts had replaced premiums on FHA and VA loans. One local builder was offering a Boston bank FHAs at an unheard of 97½.

And Boston is a long way from Washington, where most builders were looking for relief. It seemed unsurprising when the directors ended their session a day ahead of schedule and quickly fanned out to attend to the urgent business of their own business.

Former NAHB President R. G. "Dick" Hughes struck the keynote of the sessions with a blunt talk demanding the federal government stop singling out home building to carry the brunt of its battle against inflation.

"Let the government prove it is sincere about fighting inflation," he said in effect, "by stopping its own inflationary spending." Hughes asked four things:

1. Stop building Capehart Act military housing ("desirable but certainly not necessary") which is "devouring \$3 billion" of mortgage money.
2. Stop building post offices, "etc."
3. Re-evaluation of defense spending.
4. Re-establishment by the Federal Reserve of a voluntary credit restraint program akin to the one that held down lending during the Korean war.

Attacking laws forbidding builders to pass on discounts on FHAs and VAs to buyers, Hughes cried: "Not another industry in America is forbidden to pass legitimate costs on to its consumers."

Chairman James Downs of Chicago's Real Estate Research Corp. promptly backed him up. "The real problem of the builder is not the money market," he said. "It's discrimination." Downs added that artificially depressed starts now mean that a backlog of housing demand is already abuilding.

Housing output will not fall below 1 million starts a year, Downs predicts, because pent-up demand will assert itself.

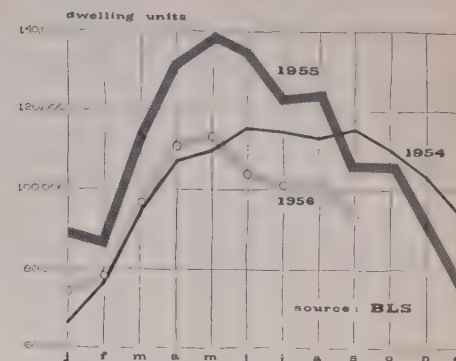
The next three months will be the worst, he forecast. "In the first nine months of '57, starts should begin to rise again and in the last quarter of the year they should be above the levels of the last quarter of '56."

H&H staff



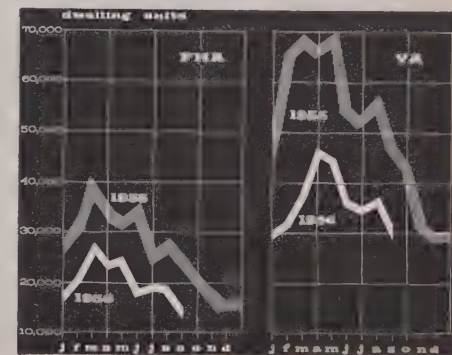
EX-NAHB PRESIDENT HUGHES (AT ROSTRUM) ASKS EQUAL TREATMENT FOR HOUSING

Housing starts drop to 93,000, 19% below September 1955



September housing starts fell to 93,000 (89,900 private, 3,100 public)—19% below the level of September a year ago. For the first nine months of the year, starts totaled 879,300—17% below 1955's January-September mark. To reach 1.1 million for the year, starts must average 80,200 a month during the last quarter.

Applications plunge below '55 levels: FHA 41%, VA 33%



Best available statistics indicate the pace of housing starts will sink more before the bottom is reached. FHA and VA applications were both far below their levels for last year during September. FHA applications totaled 14,029 (13,371 homes, 658 projects) 41% below the same month last year. VA appraisal requests totaled 30,007, down 33% from September 1955. For the first nine months of this year, FHA applications are off 31% from 1955, VA requests off 36%.

It's official: VA spurns MPR changes set by FHA

VA has rejected four of the 11 changes in minimum property requirements approved last year by FHA (Aug. '55, News).

Instructions sent VA regional officers Sept. 6 branded these relaxations of FHA rules "unacceptable" to VA:

1. Softening of rules that dwellings must be completed and ready for occupancy. FHA decided not to require that utilities be turned on before occupancy because some gas and electric firms were refusing to do so until owners actually moved in. VA contends "the cost of incomplete work could involve many hundreds of dollars." Sample: if a gas furnace or range is not working right, the owner would not find out until too late.

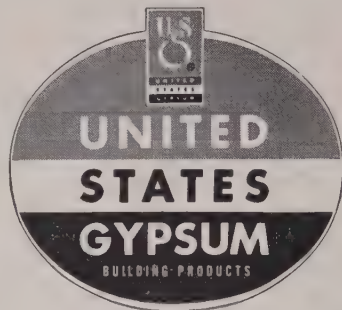
2. Elimination of downspouts and gutters. FHA now permits this where there is ample roof overhang and enough ground drainage. VA argues that roof water could "flow over

continued on p. 52

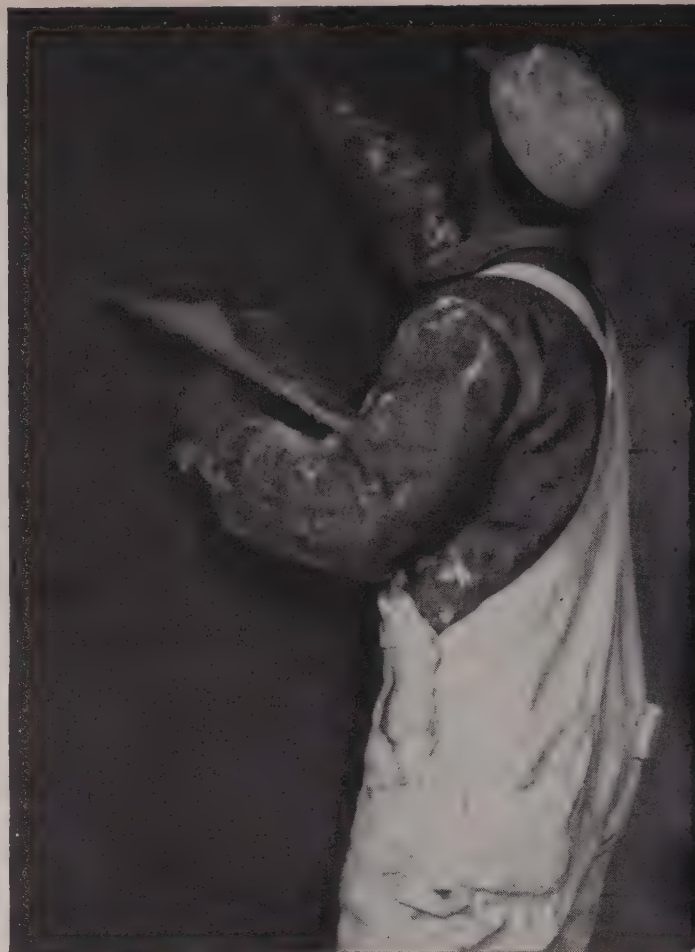
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BUILD, INSULATE, CONTROL MOISTURE in one low-cost operation with Insulating ROCKLATH* plaster base, applied to outside walls and top floor ceilings. Aluminum foil backing provides a superior vapor barrier, protects framing from damaging moisture condensation. Properly installed, it reflects 95% of sun-generated heat rays, keeping rooms up to 15° cooler—an important sales feature.



played on a professional color-style card, is planned for perfect room-to-room color harmony. Each can be used with assured good taste in any home, regardless of size, design or climatic location. These selling advantages are yours with a minimum paint inventory.



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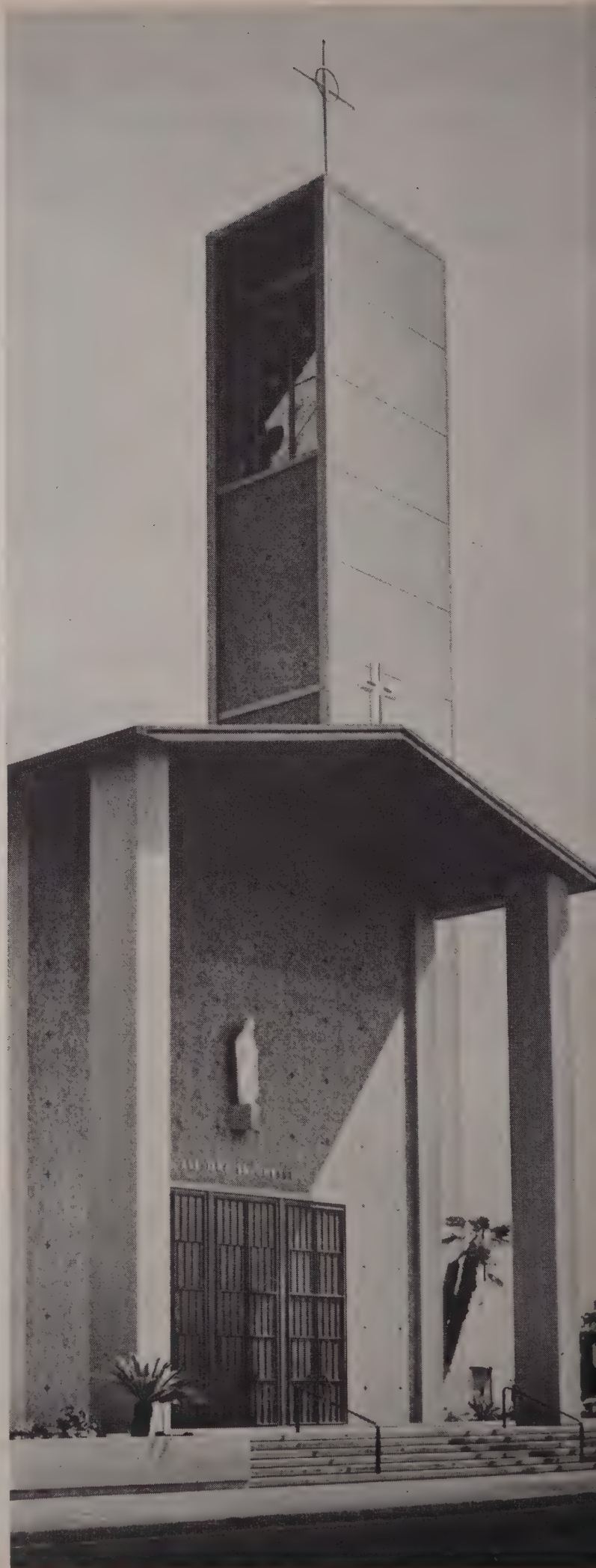
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who know
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1

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St. Brigid's Church, winner of Award of Merit, A.I.A. 1955 Nat'l Convention. Architect, Chaix and Johnson, A.I.A., Los Angeles, Calif. Painting Contractor—J. P. Carroll, Los Angeles, Calif.



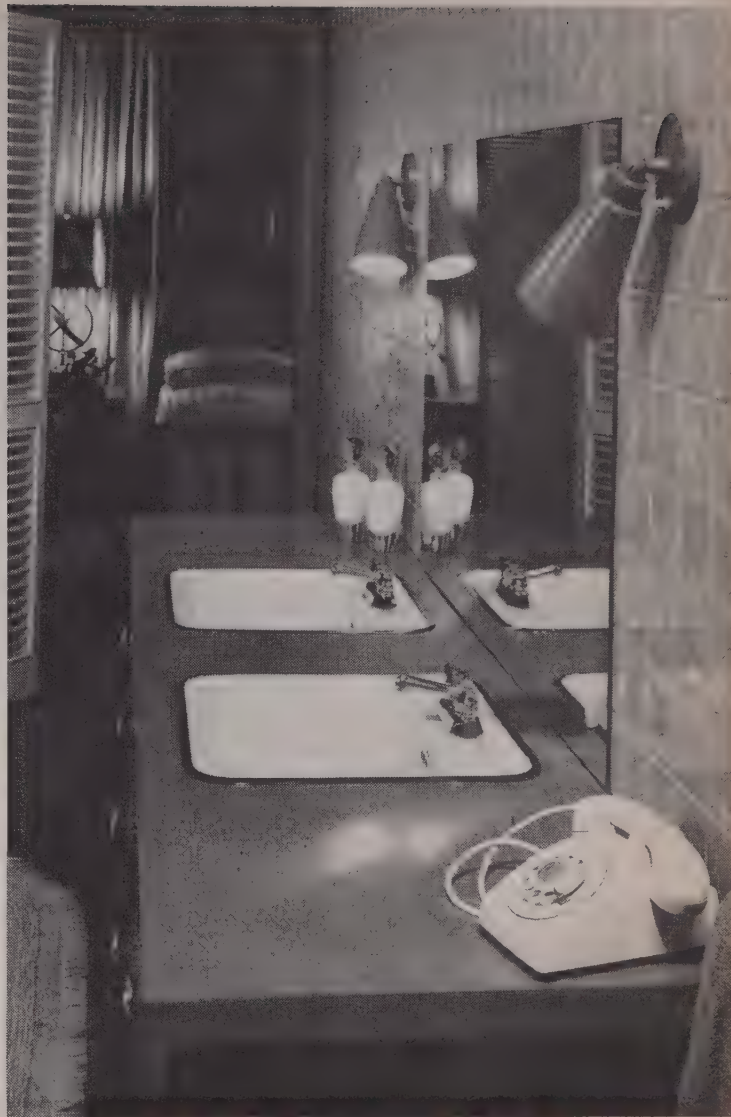
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SAYS GEORGE W. GILL, JR.:

"We find **CONCRETE MASONRY** homes have excellent customer acceptance"

Lauderdale Isles is a beautiful modern home project built by the Gill Construction Company near Ft. Lauderdale, Fla. All the homes are of concrete masonry construction with an exterior finish of portland cement stucco. They are built on 60-foot lots, most of which are on waterways that connect with a deep channel to the ocean. All waterfront lots are completely landscaped and have a concrete seawall. Along with each home goes a membership in the Lauderdale Isles Yacht Club, which features a large concrete swimming pool.

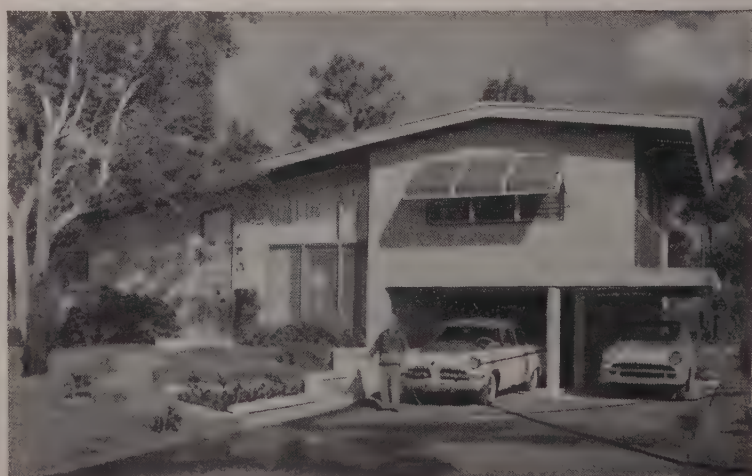
George W. Gill, Jr., manager of the Gill Construction Company, says: "Lauderdale Isles, the latest waterfront project of our company, is an excellent example of our highly successful use of concrete block and stucco home construction.

"During the nine years we have been in business in south Florida, we have built more than 2500 homes, all with exterior walls of concrete block and stucco. This type of construction has excellent customer acceptance, is very economical, and provides minimum upkeep expense."

Many of America's successful builders use concrete masonry construction. They enjoy a marked sales advantage because concrete masonry homes are comfortable, economical, and have unequalled resistance to moisture, decay, termites and fire. Send for free "*Concrete Masonry Handbook*." Distributed only in U.S. and Canada.

PORTLAND CEMENT ASSOCIATION

Dept. 11-94, 33 West Grand Avenue, Chicago 10, Illinois
A national organization to improve and extend the uses of portland cement and concrete... through scientific research and engineering field work



continued from p. 57

Green fir dimension lumber—most sensitive barometer in the industry—remains around \$62-\$65M for 2x4, 2x6 and 2x8 randoms.

A survey by Cost Analyst Col. E. H. Boeckh shows lumber sales nationwide were off 7.5% for the first eight months of the year. Stocks in yards in September were 2.7% higher than they were a year ago.

Despite lumber's slump, there are spotty reports of freight car shortages. But the problem is not as critical as it has been in recent years, because of slow sales.

Phillip Weyerhaeuser, president of Weyerhaeuser Timber, told fellow lumbermen that the cause of the plywood slump is not so much the hard money policy and declining home starts as it is overproduction.

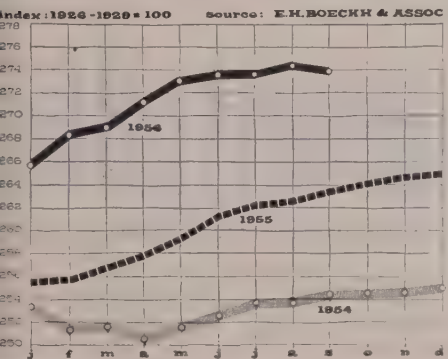
Lumber labor holds wage line

Union labor in the depressed West Coast lumber industry will not ask a wage increase this fall.

Though the 70,000-member Lumber and Sawmill Workers Union has a contractual right to ask a wage review now, union officials said because of the "demoralized lumber market," they will forgo it.

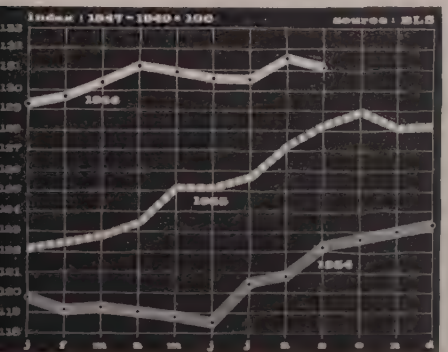
NEWS continued on p. 64

Boeckh index drops for first time in '56; upward turn likely



Boeckh's building cost index for residential structures fell 0.5 points, to 273.9 in September. It was the first time in 1956 that the index has dropped. Col. E. H. Boeckh attributes the dip to the continuing decline in lumber prices but he foresees another upward turn as increasing cement prices are reflected in later cost indexes.

BLS price index declines 0.3% as lumber prices continue down



Building materials' prices fell off slightly in September. They dropped to 131.2 from the all-time high of 131.5 of August. This is still 2.1 points over September 1955. Lumber and wood products moved down for the fifth successive month. Price of plumbing equipment fell 0.2 but heating equipment, metal doors, sash and trim moved up.

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Richmond Homes beautiful, new 3-bedroom Nassau pictured below. Like all Richmond models it's delivered fully protected with Arco exterior primer.

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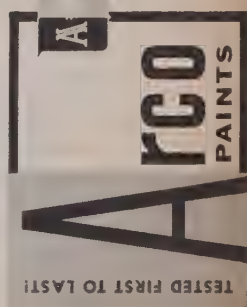
To insure long life for the top quality structural materials used in all their houses, engineers at Richmond Homes specify Arco exterior primer—just one more proof that only the very best ever goes into a Richmond product.

Applied at the Richmond factory, this neutral gray coating is both decorative and durable. It seals and preserves for months if finish coating is delayed.

Richmond is typical of the many Arco customers who are finding Arco finishes the best and easiest way to paint in lasting beauty and protection.

If you have a color or paint problem let us help solve it . . . as we do for many customers in light construction. Write for details on Arco exterior primer—available for either factory or on-the-site application. Also ask for in-

formation on revolutionary new quick drying Arco Alkyd House Paint and Arco Interior Alkyd Ripple Texture Wall Finish—the ultimate in one coat protection over dry wall or plaster.



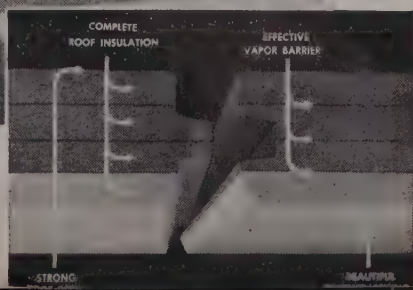


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This new material combines a sturdy deck, complete roof insulation, efficient vapor barrier, and a beautifully finished ceiling in a single easy-to-handle board. Armstrong Temlok Roof Deck needs only beams to support it and built-up roofing to weatherproof it. By eliminating the need for many old-style materials, Temlok Roof Deck can cut handling time by 50% and save as much as \$250 per house. In addition, the beautiful open-beam ceiling is a valuable, promotable selling feature for your homes.



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These selling aids will help you sell your houses faster by showing your prospects the many advantages of Armstrong Temlok Roof Deck. All sales helps are yours free for the asking.

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Tells your prospects why a house built with roof deck is stronger and better. Your name and project name are imprinted on the cover without charge.

B. Selling portfolio for salesmen

Provides data space for practically every feature you offer in your home . . . makes readily available answers to all the questions a prospect might ask. Invaluable to your salesmen.

... **promotable!**

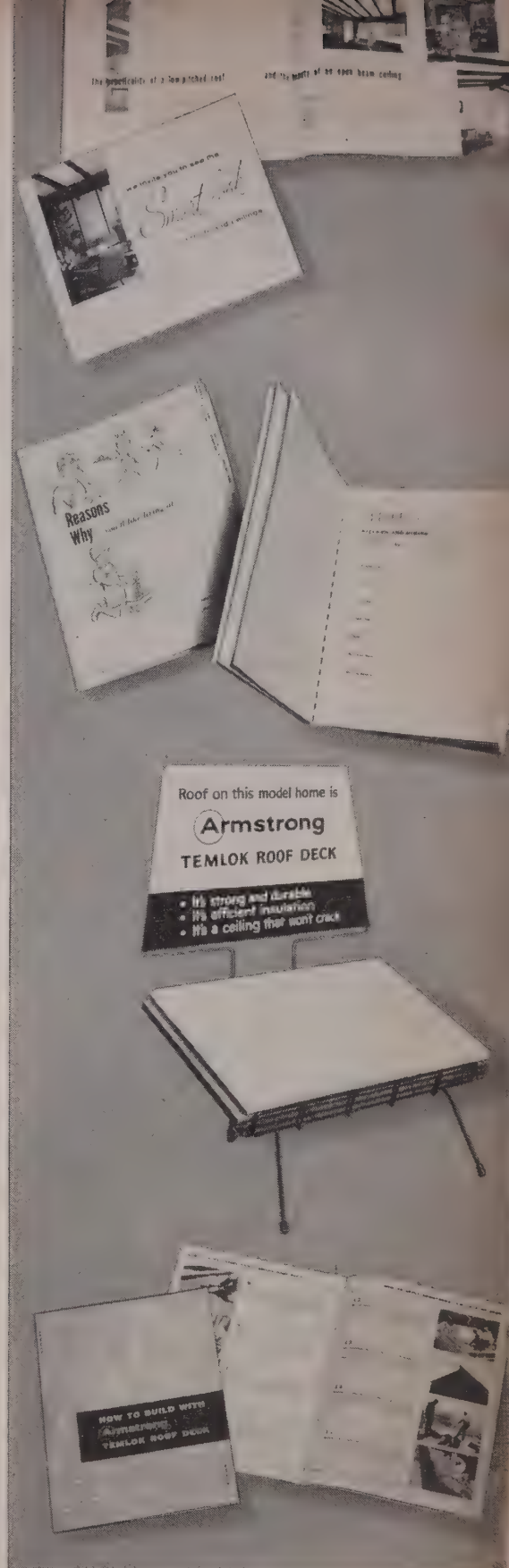
C. Smart display for model home

Eye-catching display points up advantages of Temlok Roof Deck. Actual sample of Temlok shows sturdy construction and attractive ceiling finish. Placed in your model home, this display will supplement your salesmen's talk.

D. Story of roof deck construction

This 24-page booklet gives your architect and carpenters complete product facts, test data, beam size and spacing charts, floor plans, step-by-step photos, and scaled construction details.

For free copy of "How to Build with Armstrong Temlok Roof Deck" and information on your promotional kit, write Armstrong Cork Company, 3711 Sixth Street, Lancaster, Pennsylvania.



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NATIONAL HOME WEEK:

Promotions range from razzle-dazzle to just run-of-mill; results also vary

Home Week 1956 was a spotty observance—ranging from razzle-dazzle promotion to routine recognition by local NAHB affiliates.

In Dallas, builders put up 71 new homes on five sites, topped it off with a show of political big-wigs and celebrities and some clever individual builder-promotions.

In San Francisco and Miami, Home Week meant chiefly larger newspaper advertisements for most of the same models on display since spring.

Crowd attendance and sales varied as much as the intensity of the promotion. A cross-section of the results:

Austin, Tex.: Builders had two parades of homes, with 20 homes in all. They drew 18,000 visitors in 15 days. Attendance was boosted by having "a day" for each of the towns around Austin, inviting city officials. Visitors voted for home they liked best in each parade, picked the highest priced one in each.

Los Angeles: Home Week was actually Home Month in Los Angeles but it didn't help sales. With the temperature over 90 for the entire month and running in competition with the County Fair, traffic at the tracts was slow. The Home Builders Institute sponsored a "Your Heart's Desire" contest with top prize a trip to Hawaii but results were disappointing.

Detroit: One million persons (the estimate of the Builders Assn. of Metropolitan Detroit) looked at 125 model homes. BAMD produced a TV show to show new trends in housing, got singers Julius LaRosa and Helen Traubel in publicity photos.

Wichita: Regularly one of the best Home Week promotions, the Wichita Parade of Homes had 5,000 paid visitors (at 50¢ each) on three week-ends.

Birmingham, Ala.: Builders were generally disappointed in results; 10 participated, showing 13 homes in same area. Despite special sections in local paper, only 6,000 visitors showed up in nine-day run.

Houston: Local builders assn. got most publicity on Miss Home Week contest, had three local newspaper columnists pick winner with radio, newspaper and TV coverage. NAHB President Joe Haverstick crowned the queen. Forty-three builders showed 50 homes in Home Week "Sellebration." All distributed car bumpers reading "Buy the Home, Then the Car." An estimated 100,000 visited the models.

San Francisco: With threat of strikes last summer, special Home Week models were never started. Builders in nearby Contra Costa county, where no strike was feared, put up an eight-home Parade of Homes (the only one in North California) drew 100,000 persons, though homes were priced from \$25,000 to \$37,000.

Spokane: The 32 homes in scattered locations were appropriately named "Tour of Home." Builders called it a mild success. Among the homes was the Natl. Electrical Contractors Assn. electric home. It drew about 2,000 visitors during Home Week, will remain open for two months.

Washington, D. C.: Home builders urged visitors at scattered model homes to get a "Lucky Key," sign the guest register and win free vacation trip to Miami Beach. The prize was won by Army officer and his family.

New Orleans: Seventeen builders showed 21 homes, drew 80,000 persons who were also lured by chances on merchandise prizes given away.

Seattle: Home Week was two weeks long in Seattle, thanks to keen competition between two local newspapers. The *Seattle Post-Intelligencer* ran its special section a week early. The *Seattle Times* followed the next week. Builders were pleased with turn-out, since sales had been sagging.

St. Louis: Builders reported crowds at scattered locations ranging from 500 to 5,000 in one day. In all, 175,000 persons visited one or more homes. Resulting sales volume expected to reach \$1.5 million.

Milwaukee: Seventy-three homes in three parades were opened. Builders reported good results even though Home Week ran concurrently with the end of the National League pennant race. Total attendance for the nine-day show: 275,000. Twenty of the 73 parade homes were sold.

Leo Wilt



Jacksonville: giveaway home

Jacksonville home builders gave away this \$35,000 home but lost money because they sold only 33,510 chances at 50¢ each. Though the actual cost of home was \$25,000, builders spent \$12,000 more on promotion—still called show "big success."

Gilbert A. Milne



Canada: the millionth home

Canadian builders and government housing leaders observed completion of nation's millionth post war home in a Toronto suburb. No coincidence, the event had been planned for Home Week for the past year (Oct., News).

Hayes Photographers



Dallas: builders show 71 homes in 5 parades, sell 36

Dallas builders this year built 71 homes specifically for five Parades of Homes. Total valuation: \$2 million, with prices ranging from \$16,000 to \$38,000. Attendance for eight-day parades: 209,884. Sales: 36 of the 71 parade homes, 66 in all.

Builders had help of Gov. Allen Shivers, Mrs. America (shown below arriving at one parade via helicopter), and Mrs. Texas.





Photos by C.P.I. Studios



Kansas City: prefab built, furnished, decorated in 8 hours with aid of helicopter

One of the best Home Week promotions was the Buildarama of the Elbel Construction Co. in Kansas City. The company spent \$80,000 to build, furnish, decorate and landscape a three-bedroom Wadsworth prefab in eight hours. At 10 A.M. the first of some 150 workmen began framing work as spectators watched from a 6,200-seat bleacher

section beside the site. The job was carried out with an orchestral background while a TV announcer explained each phase of construction over a loudspeaker. Helicopter carried furnishings from a store to the building site in underslung nets. Elbel used the occasion to open a new section of its big Vineyard Village project.



Sacramento: 21-home parade

Sacramento builders wanted a parade of only medium-priced homes, got 21 entries with maximum \$16,000 price. In first two days 85,000 visitors went through them and three bought parade homes.



Oklahoma City: seeing-sawing

Gov. Raymond Gary of Oklahoma opened each of three Oklahoma City home parades by sawing a board at the entrance. In eight days, 44,210 persons paid 50¢ each to see 21 homes, priced from \$28,000 to \$47,000.

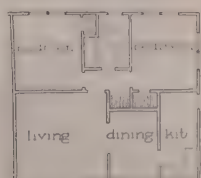


Douglas O. White

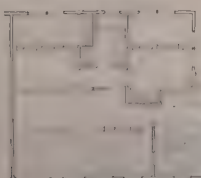
Home Week has its 'Miss'

Actress Mona Freeman was 1956's Miss National Home Week—a title entailing chiefly use of her name and photographs. With her is builder Willard Woodrow, chairman of Los Angeles' Home Week observance.

Photos by Leroy I. Miller



Before



After



San Diego: remodeled home is hit of parade models

Hit of the San Diego Home Week was a remodeled home.

Builder Leroy I. Miller, using the 33-year-old home of T. R. Wilton, threw in everything including the kitchen sink, new shake shingle siding, picture windows, plumbing, lighting fixtures, wiring, a fireplace, an enlarged, redesigned kitchen with built-ins and an expanded garage. Cost: \$10,000.

Miller noted that the remodeling was more than the average home owner would want to undertake but he wanted to demonstrate the widest range of improvement ideas.

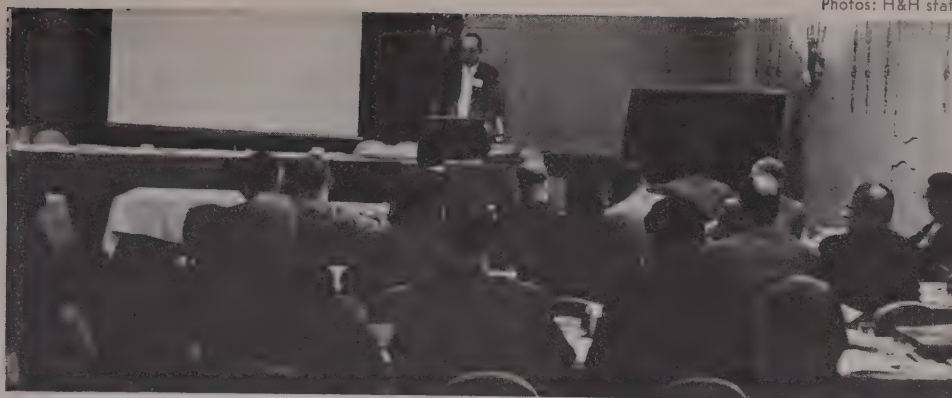
Fourteen other San Diego builders showed new homes spread around the city. There were to have been 15 homes but No. 13 was dropped after the builder sold it to a family which demanded immediate possession—a common event in booming San Diego.

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Why do
top builders
LOOK TO
LENNOX
for selling
support?

Photos: H&H staff



GE's RICHARD EHRLMAN TELLS WORKSHOP OF RENEWAL IN BLOOMINGTON, ILL.

URBAN RENEWAL:

Big industry gets into the big fight against slums; will use local managers

Big US corporations are starting to give urban renewal a big push.

They are pushing where the organized building industry has shown itself the weakest—the local level.

Nothing like this has happened before in the slowly growing war against blight—the fight to 1) wipe out the US' 5 million slum dwellings that should be demolished, 2) repair another 20 million that need fixing urgently and 3) restore the neighborhood services.

Renewal experts think this teaming of a big industry with municipal governments holds vast promise for real accomplishment in renewal.

Focal point for the co-operative program is ACTION, the two-year-old non-profit research and education service dedicated to catalyzing efforts to fight blight.

Three giant corporations—Sears-Roebuck, General Electric and American Standard Sanitary Radiator Co.—have begun mobilizing their far-flung organizations to provide the local leadership. This means that some 4,000 executives, sales officials, plant and store managers across the nation have been asked by top brass of their firms to get busy spreading information, organizing local groups, aiding anti-slum groups where they already exist.

Boost for sales

It is no secret that these big manufacturers or retailers of home equipment see a chance to reap a whopping increase in sales of their products from an effort which should benefit everybody. Executive Vice President Roy W. Johnson of GE, for instance, says that achieving even 10% of ACTION's goals should add up to \$2 billion more appliance sales plus \$300 million more a year in gas and electric sales by utilities!

Workshop planning

To train their people, all three firms are holding day-long workshops of 30 to 60 plant and store executives, plant-community relations and regional managers at which ACTION staffers led by Executive Vice Pres.



ACTION'S LASH



GE's CLAYTON



HOUSER BOHN



PLANNERO'HARROW

James E. Lash and other renewal experts explained the complex how-to-do-it of fighting urban decay. The latest of these was held by General Electric in New York under direction of Clayton Fisher, GE community relations chief. Some 65 GE men not only heard topflight advice but GE plant men from Chicago, Schenectady, Bloomington, Ill. and Brockport, N. Y. reported encouragingly on hometown progress so far, traded ideas with their fellow workers. Spokesmen for Sears and American-Standard told GE people what and how their companies were doing.

Sample: Sears, reported Harry N. Osgood, has its Chicago headquarters in a decay-threatened neighborhood. So the company gave the Greater Lawndale Conservation Commission both money and an organizer for a clean-up, fix-up contest. Sears offered to take before- and after-photos of entries, expecting about 1,000 from among the area's 50,000 residences. "Unfortunately," said Osgood wryly, "... there were over 7,000. This doesn't rebuild the area, but it certainly signifies people can be made to develop an interest and responsibility in the care of their homes."

Word from the top

The session got some blunt advice from the top figures:

► Ernest Bohn, director of the Cleveland Housing Authority: "You must be willing to engage in a continuous fight and not run at the first defeat. It's taken near municipal-bankruptcy in many communities to get action. Most of our slum dwellers are Negroes. They are unwanted. Though we have vacant land available, most of it cannot be used [for Negroes] without strife. ... Cities must work together to bring down the cost of government."

► Dennis O'Harrow, executive director of the American Society of Planning Officials warned that only "scant technical planning" help is available for renewal because there is "such a shortage of trained and experienced planners that it's pathetic."

Metal awning group to fight par selling as 'exploitation'

A campaign to rid the home improvement business of par selling has been started by the Natl. Metal Awning Assn.

The association, representing some 350 manufacturers, fabricators and dealers, has called on FHA and private banks to set maximum sales commissions on home modernization and fixup loans.

Par selling, it contends, amounts to a "malignant exploitation" of home owners by "unscrupulous operators." (In par selling, a door to door salesman is given a price by a dealer or distributor below which he may not sell the item—siding, roofing, awnings, water softeners, or whatever—but he can charge as much more than the price floor as the traffic will bear.)

"Par selling hurts everybody except the salesman," contends Stanley W. Hoffman of the awning association, "—the customer, the manufacturer and the established dealer. A par-deal salesman, when he sells, say \$500 worth of awnings, may actually be delivering a commodity worth \$250 or \$300. The balance he pockets."

A 20% maximum for sales commission, bonus and all other compensation is plenty, argues Hoffman.

New ACTION film show begins long road tour

ACTION, the nationwide campaign to help and promote urban renewal, will step up its efforts to stimulate grass roots action in the coming year.

A documentary road show, "Our Living Future" started a cross-country tour Sept. 24, to take ACTION's message to civic leaders, government officials, labor and businessmen in 92 US cities.

Contributed by HOUSE & HOME's sister publication LIFE, the two-hour show will consist basically of four films and 60 animated drawings with David Hardy, ex-foreign correspondent and news analyst, narrating. The theme of the presentation is how and why a city should get a local urban renewal program started.

US sues Bank of America, charges repair loan fraud

Guy Hollyday, when he was FHA commissioner, grew concerned over the high ratio of Title I repair loan claims by the giant Bank of America. So he gave the bank a polite warning to keep closer watch over who it was financing. A vice president hurried to soothe the FHA fears, blamed overeager branch managers. "I got assurances," Hollyday recalls that the bank would control the situation.

Last month, the situation landed in federal court in Los Angeles. The government sued Bank of America, nine home improvement companies and three individuals for \$1.5 million damages on grounds they foisted some 750 fraudulent repair loan insurance claims on FHA. It is the biggest suit of its kind ever pressed by the US.

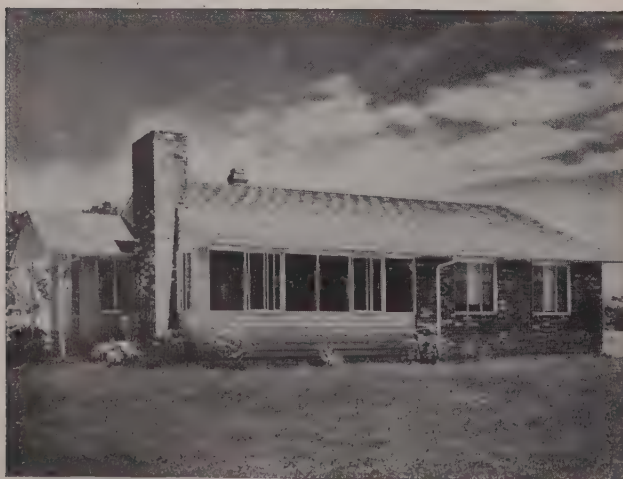
The loans involved all date back three or more years—before the Housing Act of 1954 made lenders absorb the first 10% of losses on Title I repair loans. This measure was aimed at promoting more care on the part of lenders.

The federal suit arose from the Bank of America's efforts to foreclose on a pledge agreement with United Credits Corp. (also

continued on p. 72



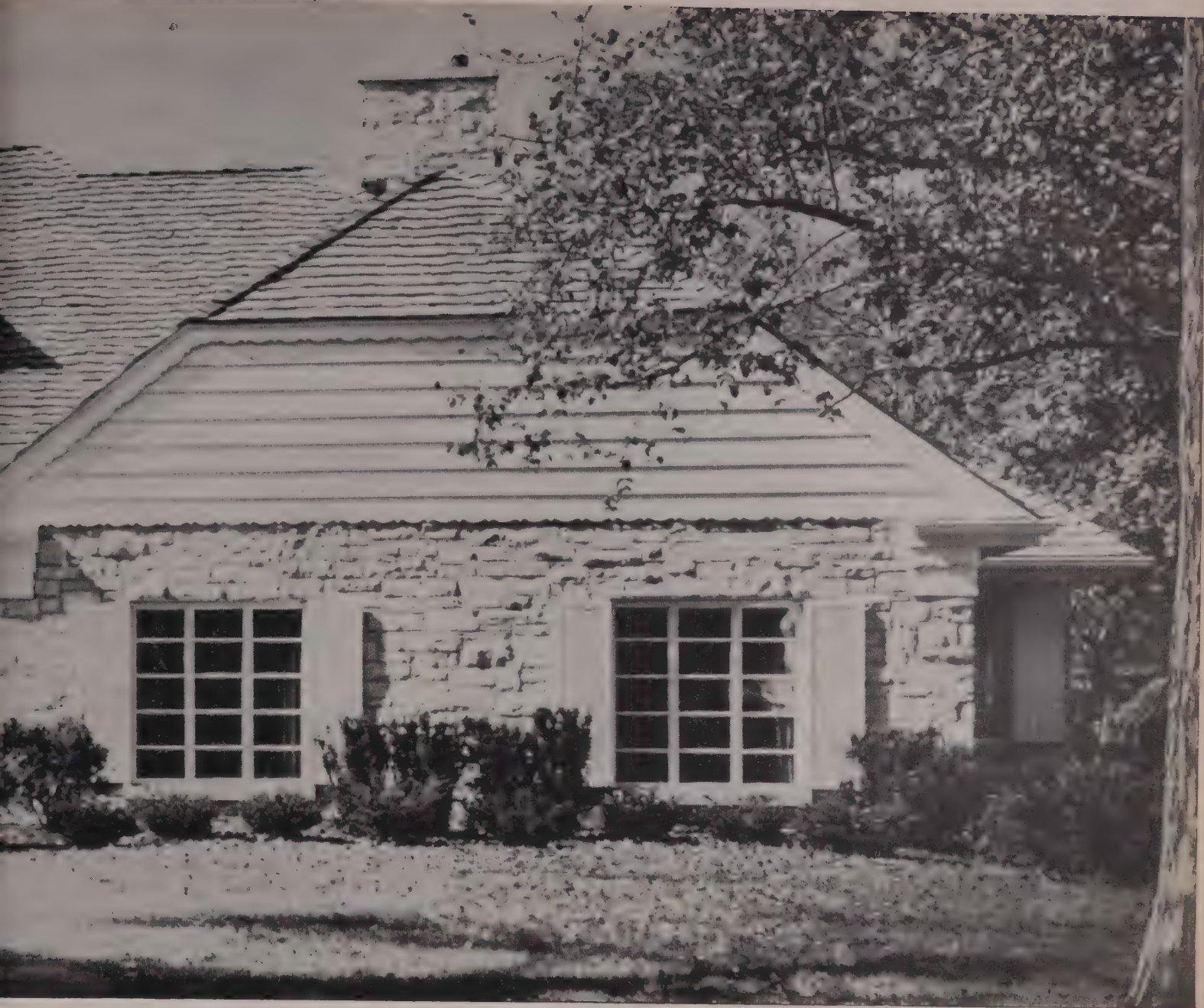
A pleasing distinction is given to this lovely residence in River Forest, Illinois, by a variety of window treatments. But whatever the style of window, it is framed in sturdy, durable steel, painted to match the light-hued woodwork. R. H. Maiwurm, Architect; Louis R. Castiglia, Builder.



Outstanding feature of this modern home in Washington, D.C. is its window wall—set in frames of steel. Because steel is so strong, it is able to support large areas of glass with slender, inconspicuous frames. Aubinoe, Edwards & Beery, Architects; Aubinoe Construction Co., Builder.



In this cottage, a fixed picture window is flanked by casement-type windows. Thanks to steel's rigidity and its freedom from warping, these casement windows will stay easy to open and close for many years of service. And occasional painting will keep them good-looking for the life of the house.



Give your homes greater salability with windows made of steel!

Whatever type of house you build, you'll find that steel windows will blend with the architectural style. They lend themselves to a variety of window treatments, and they become an integral part of the house. And steel windows add to the salability of houses because they are so popular with prospective buyers. Home owners like the strength and

durability of steel windows; they appreciate their smart good looks, their freedom from warping and the ease with which they can be painted to match exterior and interior color schemes.

You will find that steel windows are economical to buy . . . easy to handle and install. Because they are so strong, steel windows require no

special handling precautions.

For more than forty years United States Steel has been supplying window manufacturers with special rolled sections of high-grade open-hearth steel. You can be sure when you buy windows made of steel that you are getting a quality product, one that will give years of service in the finished house.

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USS STEEL FOR WINDOWS



UNITED STATES STEEL

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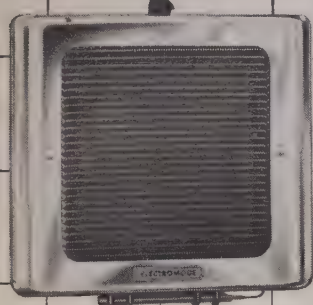
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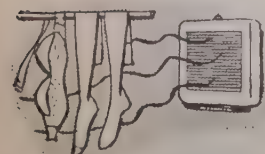
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101 OTHER USES

With a flip of the switch the Electromode Wall-Type Bathroom Heater gives you an abundant blanket of clean . . . odorless . . . all-electric heat. Wonderful for the nursery. Bathe your pint-sized Prince in King-sized warmth. Dad will go for it in a big way too! There is no longer any need for the "Lord of the Castle" to dread shaving or bathing in a chilly bathroom. Watch Dad's disposition improve. Literally 101 other uses; drying lingerie . . . hair . . . for any small room . . . and absolutely the answer for hard to heat areas.

Over 300,000 homes are now heated completely by electricity. For over twenty-five years Electromode has been producing all-electric heating systems and equipment to satisfy either supplemental or complete heating needs . . . FOR HOME . . . FOR FARM . . . AND FOR INDUSTRY.

Electromode Heaters are equipped with a sealed-in cast-aluminum heating element. Tops in safety . . . efficiency . . . and economy.

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named a defendant by the government), whereby the bank loaned it some \$17 million and took as security repair loan notes that United Credits had discounted for the construction companies. When United Credits did not pay, the bank sued FHA for \$512,621 for notes involving Title I repair loans.

The government counter-punched with its civil fraud suit, asserting that the bank knew the repair loan notes were "false, fictitious and fraudulent." Among the government charges: "Many of the dealers were engaged in deliberate and substantial violations including the use of the 'model home pitch,' cash kickbacks, no down payment, consolidation of debts, listing of false credit information, making of gross and exorbitant overcharges, inferior and incomplete construction of home improvements, employment of salesmen under fictitious names [who] had previously been placed on an FHA 'precautionary list,' making of premature completion certificates and improvident, reckless and indifferent acts in granting loans."

Interlocking defendants

Named in the complaint were: Colonial Construction Co. and Enterprise Construction Co. of Oakland; Adex Construction Co., Metro Construction Co. and Enterprise Construction Co. of Los Angeles; Enterprise Construction Co. of California, Enterprise Construction Co. of Fresno and Enterprise Construction Co. of San Diego. Individuals accused were W. I. Tenzer, Robert Tenzer and Maury J. Siegel of Los Angeles, listed as officials of a number of the construction firms. US Attorney Laughlin Waters said the construction companies and United Credits, a Los Angeles organization now defunct, were linked by interlocking directorates.

A Bank of America spokesman called the suit "a legal maneuver" by FHA "to avoid liability under their insurance contract."

Lending volume hints fixup business is on the rise

More evidence is piling up that house remodeling is on the rise. Items:

▶ *The American Banker*, New York daily trade newspaper, analyzed home and appliance lending in about 100 banks throughout the nation, reported that home improvement loans rose 18% the first three months of this year compared to the first three months of 1955. Appliance loans were up 9%.

▶ Officers of more than 1,000 banks in 9 western states reported home improvement loans were up 36% so far this year compared to the same time last year. This increase, compiled by *Western Building* magazine, was nearly double what the same panel of bankers had predicted at the beginning of the year (a 17% increase).

▶ Sears Roebuck, which says it is the largest single building materials and millwork dealer in the nation, made this report on remodeling and fix-up activities in 111 areas where its local managers have been active in promoting Operation Home Improvement:

In one-third of the 111 areas where there is no local OHI drive, dollar volume of remodeling permits was down 1.7% for the first 5 months of this year compared with the same months of 1955.

In one-third of the areas where OHI campaigns have been launched lately, permits are down 15%.

In one-third of the areas where OHI drives have been in effect since the first of the year, dollar volume of permits is up 25%.

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COMMUNITY FACILITIES:

Detroit builders wage series of court battles against suburban restrictions

Detroit home builders, fighting discriminatory fees and codes in the suburbs, have been winning court battles but may yet lose the war.

In the past year, members of the Builders Assn. of Metropolitan Detroit have filed four suits, won two, lost one (though this is on appeal). One more is pending. All four actions came after 1955 BAMD President Webb Coe warned members in grave terms: "Our industry is threatened with destruction." The record:

► First suit was filed by University Homes Inc. and Mark T. Jacobson Feb. 16 against Redford Twp. The township had passed an ordinance declaring it illegal to use drywall less than $\frac{3}{4}$ " thick unless it could be made that thick by lamination. Since drywall comes only in $\frac{1}{2}$ " thickness, it meant builders would have been required to use two sheets.

The builders charged the ordinance was arbitrary, unreasonable, discriminatory and unconstitutional. The court agreed and the ordinance was voided.

► Later, Redford Twp. imposed a \$50 fee over and above the building fee for each residential permit issued. The money was to go into a parks and recreation fund.

The Antoine Building Co. sued with I. H. Yackness, BAMD general counsel, and Ralph W. McKenney representing it. They charged that the levy was unconstitutional because it had no relation to the operation of the building department.

The court again ruled for the builders and \$24,000 which Redford Twp. had collected while the suit was in court has been returned to nine builders who paid it under protest (see photo).

► Meanwhile Builder Fred Merrill had sued the town of St. Clair Shores (pop. 19,823) north of Detroit, claiming its building fees were exorbitant. His suit pointed out that the town had appropriated only \$137,750 for its building department in the year ending June 30, 1955, while collecting \$456,593.

Building fee schedule when Merrill sued was \$7.50 per thousand valuation. The old schedule was \$4 for the first thousand and \$2.50 for each thousand after that. Since Merrill sued, St. Clair Shores has raised the ante to a \$95 minimum for a home priced up to \$10,000 and \$1 per thousand after that.

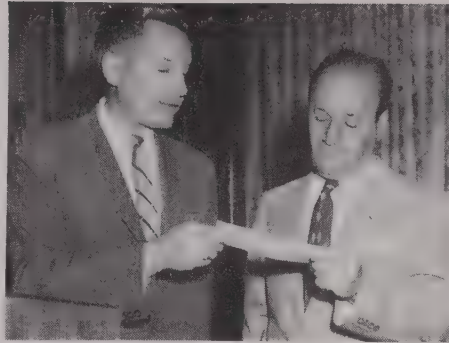
Inspection fees were also raised substantially. Figuring in both increases (Oct., 1954 and July, 1956), the fee on a stack has been raised from \$1 to \$5, a water closet from \$1 to \$2.50, a water heater from \$2 to \$4, a sewer from \$5 for any size to \$5-\$18, depending on size (\$12-\$14 for most), four electrical circuits from \$2.50 to \$10 with the fee for additional circuits up from 25¢ to \$2 each.

This time the court held, that since the ordinance did not earmark the fee for any specific "unrelated purpose" it was legal.

Merrill has asked a rehearing, claiming the court erroneously included cost of operating police, fire, highway and public works services in figuring the cost of enforcing the building code.

► The decision in the Merrill-St. Clair Shores case bodes ill for a suit filed by Garrison Homes Inc. against Redford Twp., also charging excessive fees.

Garrison President Ezriel Weisman points



BAMD President Rodney M. Lockwood (l) presents \$2,400 refund on Redford Twp. fees to Al Keats of Antoine Building Co.

out that there is an ever-widening gulf between receipts and expenditures of the Redford building department: receipts of \$43,756 and expenditures of \$25,994 for fiscal year 1952 compared to receipts of \$201,815 and expenditures of \$60,586 for fiscal 1956.

BAMD officials fear that the Merrill decision foreshadows a similar ruling in the Garrison case.

Moreover, Detroit home building has been raked by what Coe calls "a growing wave of restrictions completely outside the area of health and safety codes." He says: "We have slowed the trend, but the bad effect on residential construction has nevertheless been felt by builders generally."

New federal aid may ease sewage, drainage problems

Builders may get relief for two community facilities headaches—sewage disposal and drainage—from new federal sources.

1. The Public Health Service is starting a Congressionally authorized program to help cities build sewage treatment plants. An annual fund of \$50 million is available, but no city can get more than \$250,000 or 30% of total cost, whichever is less. The program is aimed at controlling pollution of interstate streams. Half the money is earmarked for cities of 125,000 population or less. Experts think cities benefiting from the program will be more likely to provide sewage disposal for peripheral housing projects. To obtain grants, local governments must apply through state pollution-control boards.

2. Congress has broadened a soil conservation law (PL 566) to allow federal aid to build water retarding structures where measurable damage is done by high waters down stream. As amended, the law now applies to urban areas as well as agricultural land. The measuring is especially easy where a stream flows into a metropolitan area causing highwater in valleys and flooding of subdivision streets. Efforts by Louisville to avail itself of the new law provide a good example of how it can help builders.

The city has retained engineers to determine how such aid can be used to prevent periodic flooding in the 93-sq.-mi. Pond Creek watershed, lying across one of the city's fastest growing residential areas. This land is "crawfishy," a constant problem to builders and source of frequent septic tank complaints.

The funds are administered by the Soil Conservation Service through local soil conservation districts.

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John Ahlhausen



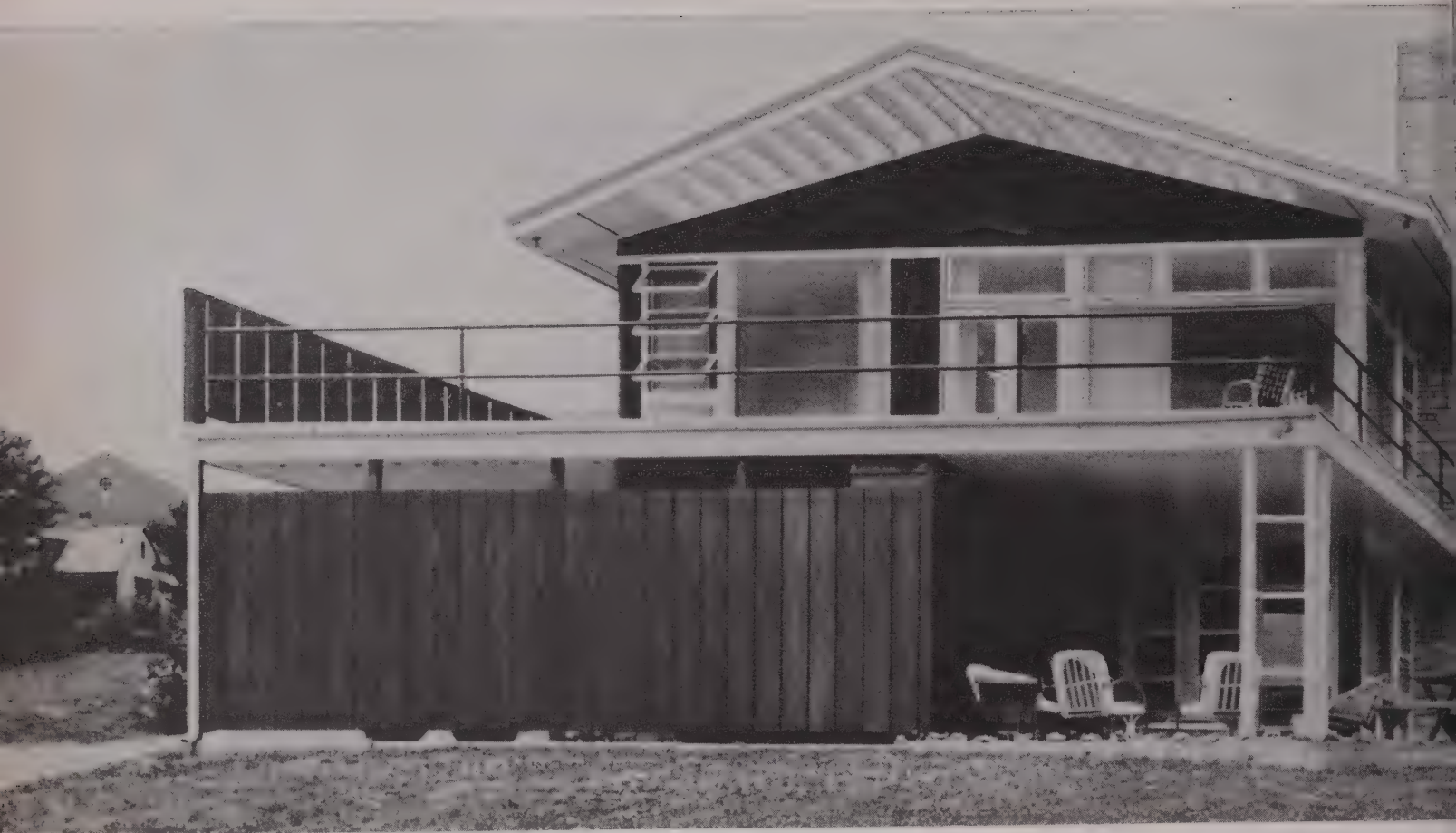
Milwaukee buys a 'firehome' in a fast-growing suburb

School officials pressed for building money found long ago that a house can make a good, temporary substitute. Last month, the Milwaukee Fire Dept. came to the same conclusion.

The department bought this home in a newly annexed area to serve as a firehouse for at least five years. It cost \$16,900—far less than a new firehouse. Firemen, five on a

shift, will sleep in two of the three bedrooms (the third will be an office), lounge in the living room, eat in a modern electric kitchen. They have regulation fire department furnishing—nothing homier. Instead of sliding down a pole, firemen rush through an enclosed breezeway to reach Engine 29 outside in the enlarged garage. Engine 29 had been doubled up with another fire company.

How to put "visible value" in your



STRUCTURAL WALL MIRRORS of Pittsburgh Plate Glass are another feature which will do wonders in helping you sell your homes faster. A "wall of mirrors," like the one installed in this room, adds a luxury touch. Wall mirrors have the ability of making a small room look big. A narrow room, for example, will assume greater width. And anywhere in the home—in the living room, bedroom, entrance hall—the magic of mirrors gives a "worth more" feeling.

Build it better with

Pittsburgh Glass

LABOR:

Chicago builders try to force lathers to enlarge their union

Chicago contractors, plagued with a shortage of workmen, began laying off union lathers in mid-October in an effort to force the union to enlarge its membership.

Contractors complained that the union had 1) broken its promise to stop its union shop and hiring hall practices and 2) refused to work with non-union help brought in to meet the shortage of men.

The lockout promised to hit hardest at industrial, commercial and institutional building, but will also affect home construction. Home builders' spokesmen estimate up to 70% of Chicago area homes are now dry-wall.

Union officials denied the union was operating a union shop or hiring hall. They said the union has dropped former limitations on work (these include an alleged ceiling of 30 bundles of lath per man per day and refusal to work in the fall unless the building is entirely enclosed).

The union has faced charges of restricting the lathing force before. In 1952, the federal government, in an antitrust suit, accused it of harassing out-of-state contractors to suppress competition. The suit was subsequently dismissed.

Omaha traveling picket line ruled unfair labor practice

A traveling picket line used by two Omaha construction unions has been outlawed.

The unions, Teamsters Local 659 and Laborers Local 1140, were on strike against the Ready Mixed Concrete Co., a major supplier for Omaha home building. Strikers were following the company's trucks to construction sites and throwing up picket lines to induce workers on the jobs not to use the concrete.

The National Labor Relations Board sustained a ruling by trial examiner that this is an unfair labor practice. The unions were ordered to restrict future picketing to the plant.

MILITARY HOUSING:

Cooling set for first 1,000 Capehart units—but no more

The first 1,000 Capehart military housing units will all have central air conditioning but they'll be the only ones that do.

After the Air Force had purchased 1,000 Westinghouse 3-ton units (cost: \$500 each) for units at Abilene (Tex.) Air Base, the Pentagon started a study to decide just how extensively military living quarters should be air conditioned.

The study of cooling was not long under way before Pentagon brass got cold feet. Wary of cries by congressmen that air conditioning is a too-costly luxury, they ruled that central cooling must not be installed in any military housing—Capehart, barracks or bachelor officer's quarters. At the same time they set up a zone system giving priority for air conditioning to southern parts of the country, but only in hospitals and offices.

The Air Force still contends air conditioning is justified in hot spots like Texas. A key point in the argument: building costs are so much lower in the South that cooling can be built-in and unit costs still kept comparable to those in the North. At Abilene, the 1,000 air-conditioned units cost only \$13,500 each.

New York builders support extension of segregation ban to all housing

Backers of laws barring racial segregation in housing have raised their sights to include not only FHA and VA projects—but all housing.

And they have won the support of both New York State and Long Island home builders!

Up to now, organizations like the Natl. Assn. for the Advancement of Colored People, the Urban League, and New York's Committee Against Discrimination in Housing have pushed largely for laws akin to New York state's Metcalf-Baker Act which prohibits segregation in any FHA- or VA-aided project of 10 or more units on contiguous land. (This had the effect of exempting peanut-volume builders and individual home owners re-selling to an FHA and VA buyer from the anti-segregation rules, hence made it easier to win political support.)

Wanted: FEPC laws for housing

Last month, as the national and New York state Committee Against Discrimination in Housing held its annual meeting in Manhattan's plush Park Lane Hotel, these developments indicated that anti-bias leaders' target is now all housing, however financed:

Both Keynote Frank S. Horne, former HHFA race relations adviser who was ousted by Administrator Albert M. Cole last year, and Robert C. Weaver, New York State rent control boss, called for a major push to enact fair housing practices laws in cities and states banning race discrimination without qualification. There was no audible dissent. (The Urban League of Greater New York had advocated the same course only a few days earlier.)

Dr. Horne, now executive director of the New York City commission on intergroup re-

lations, also urged "complete rejection" of "special financing or other gimmicks geared to production of 'Negro housing.'" As samples, he cited Fanny May special assistance funds, the "specious" Voluntary Home Mortgage Credit Program, FHA exhortations to "step up" efforts to meet a "minority housing market." The conference, attended by some 300 representatives of civic and government groups, took these proposals calmly.

Bombshell from builders

What did electrify it was the unexpected builder support. This was announced by Emil Keen, chairman of the Long Island Home Builders Institute NAHB's second-largest chapter) and secretary of the N. Y. State Home Builders Assn. Said he: "We [builders] are faced with an intolerable situation. So far, the impact of the Metcalf-Baker Law is such that no actual, realistic gain has been made in the elimination of discriminatory practices. We builders are willing to follow the laws as prescribed, but not when they are restricted to one segment and the rest of the building industry may do as it pleases . . .

"We will be happy to support an amendment to the law to cover all housing in New York state, in all prices, for all groups. . . . We believe integration is here and we are in favor of it, but we don't want to be the policemen."

Keen explained later his remarks represent "official policy" of the Long Island Institute, but only the "informal" view of state builders. As the conference broke up, Sen. Metcalf took Keen aside and, in an exchange of pleasantries, Keen offered his aid in introducing an appropriate amendment in the New York legislature.

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**Joe Eichler builds a jet-age experimental steel house**

Builder Joseph L. Eichler of San Mateo, Calif., who startled his competitors a year ago with an experimental steel house, has done it again.

This time it's the X-100, an ultra-modern 2,310 sq. ft. home of steel and glass incorporating such uncommon features as a reversible fireplace, a complete wall of glass, electrically operated sliding glass doors instead of windows, plastic bubble skylights and wall panels of honeycomb plastic. Indoor gardens are radiant heated (like the house) and boxed with translucent walls. Eichler doesn't intend to sell the house. He built it for two reasons: 1) to get potential home buyers out to his 800-house San Mateo Highlands tract where X-100 is located and 2) to try out new materials, products and methods he might use in production or custom homes.

As a drawing card, the X-100 has been a success. Since it was opened with much fan-

fare of press dinners and advertising early in October an estimated 20,000 persons have gone through it. About 75% of them have wandered over to the three Eichler models—which are definitely for sale.

Eichler's success on the second count is spectacular, too. Few homes have been built in the US embodying such a profusion of advanced ideas. The market problem is cost. The steel framing cost much more than the post and beam construction which Eichler often uses. Eichler concedes it took four times as long to erect the steel frame as does wood post and beam.

Architects A. Quincy Jones and Frederick Emmons, who designed the X-100, say they feel the scheme would compete costwise if steel companies would produce light structural steel for homes. The X-100 used beams made for industrial use. Landscape architect was Douglas Baylis, structural engineer was William R. Mason.

**5328 Truscon Series 138 Double-Hung Steel Windows
used in Winston Park Subdivision where . . .**

IN 1955 THEY SOLD OUT 300



600 additional homes are now under construction for 1956—
using 10,000 Truscon® Double-Hung Steel Windows—Series 138.

REPUBLIC



World's Widest Range of Standard Steels

PEOPLE: Architect Donald Honn wins 'substantial' damage settlement in plan piracy suit against Texas builders

Two Texas home builders, accused of pirating an architect's plan, have been enjoined by a federal court in Ft. Worth.

The builders, **James Doss** and **Larry Blackmon** of Weatherford, Tex., had retained Tulsa Architect **Donald H. Honn** to draw plans for 100 homes in Odessa and El Paso, Tex., paying him \$10,000—\$100 per house.

Honn charged, in a suit asking \$65,075 damages, that Doss-Blackmon also used the plans in another tract of 73 homes in El Paso. He protested that the builders were wrongfully using Honn's name in their advertising and promotion, and intended to use his copyrighted plans in 1,416 more homes in El Paso.

Last month, in an out-of-court settlement Honn won "substantial" cash damages (exact amount not disclosed). The court permanently enjoined Doss and Blackmon from 1) using the Honn plans after completion of 49 more homes in El Paso which were already under way and 2) using Honn's name in their promotion.

Commented Honn: "I think this case should be of . . . encouragement to other architects in a similar position."

CONGRATULATIONS: to Builder **Jack Friedland** of Staten Island, N.Y., first winner of the Manny Spiegel Award as the man who has made the outstanding contribution to home building in the New York metropolitan area in 1956. The award was founded by the seven home building associations in the area in honor of Spiegel, past NAHB president from Englewood, N.J., who died in June; to **Mrs. Bernice P. Rogers**, deputy commissioner of buildings for New York City, who received

the City Fusion Party's "municipal oscar" for her efforts in fighting blight, notably her crackdown on derelict landlords who have failed to properly maintain their buildings (News, June '54).

Gus Fields elected to head NAHB executive officers' group

Gus Fields, managing director of the Oklahoma City Home Builders Assn. and executive director of the Oklahoma State Home Builders Assn., is the new president of NAHB's executive officers' council.

He was elected at the EO council conference last month in Hartford, Conn. to succeed **Earle W. DeLaittre** of Cincinnati, Ohio. Other new officers: **Clayton Johnson** of Hartford, **John R. Downs** of Chicago and **S. A. "Sonny" Dans-year** of Miami, vice presidents; **Irving H. Brinton** of Wilmington, Del., treasurer; **George Prussell** of Los Angeles, secretary.

Fields, 52, was born in Okemah, Okla., attended the University of Oklahoma and Oklahoma A&M and then spent 25 years as a newspaper reporter and editor before he took charge of the Oklahoma City builders chapter in 1948. That same year, the one time telegraph editor of the Tulsa Tribune also completed his studies for a law degree at night



H&H Staff
FIELDS

school in the University of Tulsa. But he has been too busy with home building ever since to take a bar examination. Under his guidance, the Oklahoma City chapter has grown from 100 members to 250. The state association, which he helped organize in 1950, has grown from two associations to 11

Roy Marr of Memphis nominated for presidency of US S&L League

Roy M. Marr, 61, a former railroad man who now heads the Leader Federal Savings & Loan Assn. in Memphis, will be the new president of the US Savings & Loan League.

The only nominee, Marr will step up from the vice presidency according to USS&LL custom. His successor as vice president will be **Joseph Holzka**, 54, executive vice president of the Northfield Savings & Loan Assn.



Maria LaYacona
HOLZKA



Bob Williams
MARR

of Staten Island, N.Y. Their election is scheduled for the US Savings & Loan League convention in Philadelphia this month.

Marr has been in the S&L business since 1941, has headed Leader Federal since 1944. He was previously president of the Memphis

continued on p. 88

CLOSEUP: John F. Austin, new head of Mortgage Bankers Assn.

One of John F. Austin's key aides sums up his boss in two words: "Constant drive."

Austin, son of a banker who grew up to become a commercial banker himself, has been a full-time mortgage banker only eight years.

Drive has taken him, at 48, to the summit of his profession. He is president of the largest US mortgage banking firm, T. J. Bettes of Houston, and last month took office as president of the venerable Mortgage Bankers Assn.

Austin was brought into mortgage banking in 1948 by the late Torre J. Bettes, who persuaded him to give up a vice presidency of the South Texas Commercial National Bank in Houston. Austin handled most of the bank's construction loans, so he was close to the mortgage field. He was Bettes' executive vice president for only two years, moved up to the presidency when Bettes died in 1950.

Texas-born Austin was practically teed off on banking journals. His father was president of the Frankston State Bank where young John earned his first nickel sweeping the floor and earned summer spending money during years in school.

After graduating from the University of Texas in 1929, Austin became cashier of his father's bank. Later he attended Rutgers graduate school of banking (where he got malgria), then went home to Texas to become, first, a state bank examiner, then senior examiner with the Federal Reserve Bank of Dallas. He joined the South Texas Commercial Bank in 1941, took time out in 1945 to serve a hitch



Pics Chicago
MBA PRESIDENT AUSTIN

At the summit of his profession

as a lieutenant in the Navy's finance division.

Auburn-haired-Austin is an energetic but relaxed worker. Though the Bettes organization is on a five-day week, he not only comes to his office Saturdays but also spends at least an hour or two there Sundays—except, that is, when he is on one of his frequent air trips to visit lenders in the East or some of the 12 Bettes offices in Texas, Oklahoma, Arkansas, California and Hawaii.

The Bettes Co. has prospered phenom-

enally under Austin. Its servicing portfolio has reached \$950 million and originations this year may run \$200 million (80% of them FHA and VA and only 10% non-residential). One of the reasons behind such growth: like many another big mortgage banking firm, Bettes consistently takes the calculated risk of issuing firm commitments to builders though no permanent takeout is arranged at the time.

His appearance and demeanor are no clue to his well regimented working habits. He is a casual but neat dresser, wears horn-rimmed glasses, talks with a soft Southern accent, and flashes a broad smile to match.

Austin has a strong streak of the sentimentalist. Every November he goes deer hunting with friends—but he never shoots a deer. He feels too sorry for them.

Austin *does* make time for civic chores. He has been chairman of the city budget committee, active in the Community Chest and Lighthouse for the Blind. He is on the boards of three banks (First City National and Harrisburg National of Houston and the Frankston State Bank), belongs to three-private clubs and the Methodist Church.

The Austin family—his wife, Helen, and their two children, Mary, 15, and John III, 12—live in a one-story brick ranch—handsome but not ostentatious—in Tanglewood, one of Houston's best residential sections.

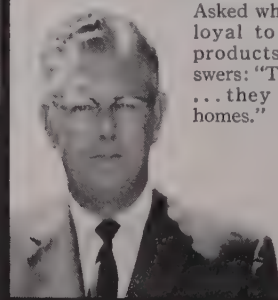
In MBA, Austin has been chairman of several committees, regional governor, vice president and president of both the Houston and Texas MBA's.



H. B. Kaulbach, Builder
San Antonio, Texas

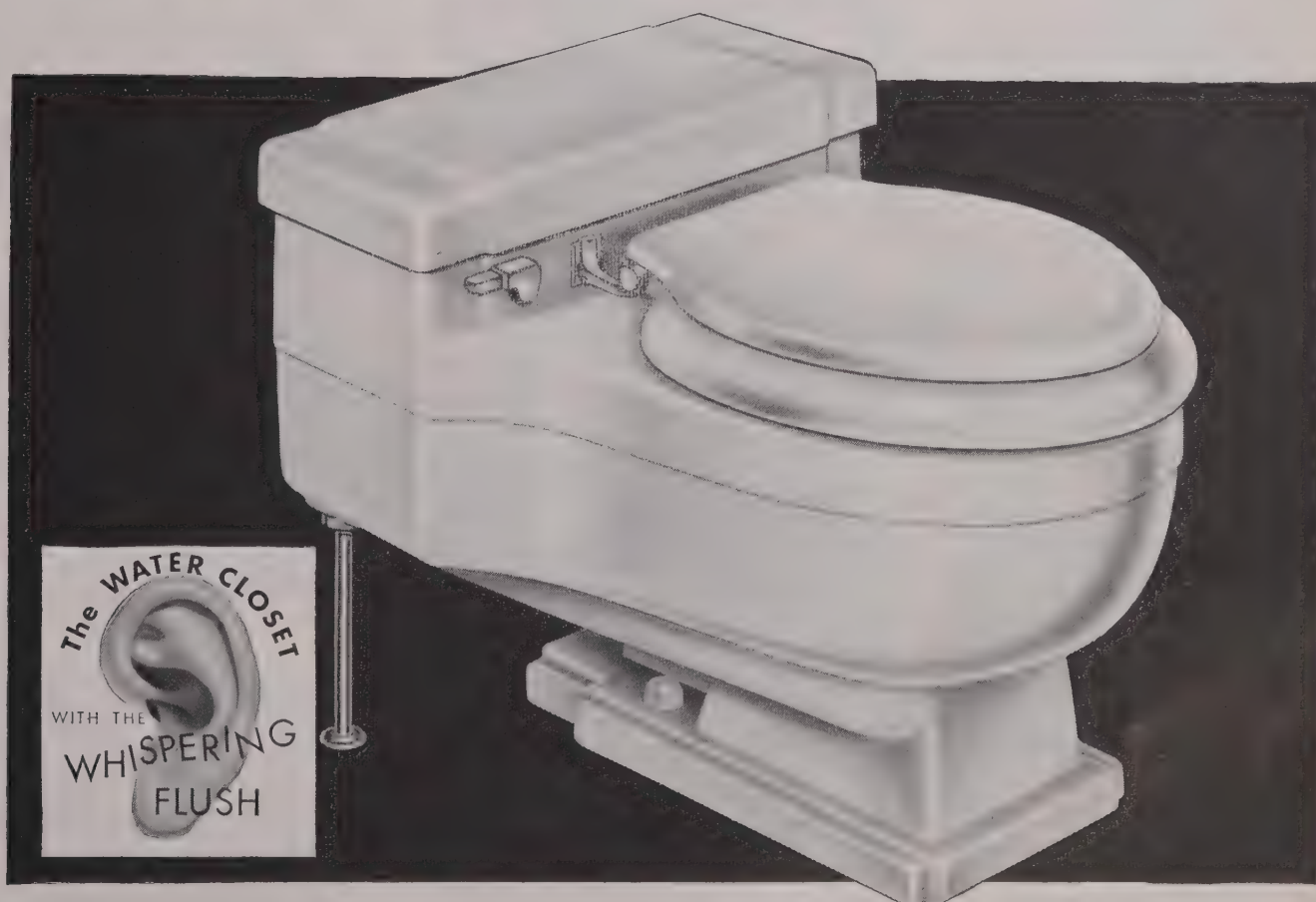
Mr. Kaulbach specializes in large custom homes; builds 10 to 60 a year.

Asked why he is so loyal to Insulite products, he answers: "That's easy ... they help sell homes."



WATER WORRIES BANISHED!

NON-OVERFLOW
WATER CLOSET
HAS WHISPERING
FLUSH!



Here is the most wanted, most trouble-free water closet you can offer. It's the famous CASE Non-Overflow One-Piece* that hushes rushing water down to a WHISPERING FLUSH. Every time you install a CASE Non-Overflow One-Piece, you'll build your profits and your reputation because it's the finest water closet available.

Look at these sure-fire sales features. *Non-overflow bowl; safeguarding antisiphon ballcock; healthful seat height; streamlined, up-to-the-minute design, time*

*PATENTED

tested, with the whispering flush that's already known throughout the industry.

FOR EXTRA PROFITS, SELL COLOR! REMEMBER, ONLY CASE MANUFACTURES COLORED FIXTURES WHICH CORRESPOND IN COLOR TO THE COLORED FIXTURES PRODUCED BY LEADING COMPLETE-LINE MANUFACTURERS, PLUS SPARKLING BLACK AND WHITE. ASK YOUR CASE WHOLESALE OR WRITE:

CASE MANUFACTURING CORPORATION

33 MAIN STREET, BUFFALO 3, NEW YORK

continued from p. 83

Union Station Co. and terminal manager for the Louisville and Nashville RR.

A deeply religious man, Marr is a non-smoker, but does enjoy an occasional drink. Easy going and good humored, he is an ardent golfer and fisherman.

Holzka has been in the S&L business for 33 years, has been managing officer of Northfield S&L since 1938. He was a member of the Federal Home Loan Bank of New York for four years.

John Bonforte, who has developed an entirely new community near Pueblo, Colo., will leave Nov. 15 to spend two months advising the Chilean government on housing problems.

He was appointed by the International Cooperation Administration. Though now a home builder, Bonforte is also a civil engineer with experience in heavy construction.

Prof. Talbot Hamlin, top US architectural historian, dies

Talbot Faulkner Hamlin, 67, top US architectural historian who crowned a prolific career as a writer by winning the Pulitzer prize last spring, died Oct. 7 in Beaufort, N. C. after a stroke.

Hamlin and his wife had been enroute to Florida on the 33' cruiser, Aquarelle, via the

Intracoastal waterway where he had spent much of his time since retiring in 1954 as a professor at Columbia University's school of architecture

The white-bearded Hamlin, a fellow of AIA, won the Pulitzer prize in biography for his book on the life of Benjamin Henry Latrobe, first professional architect in America.

Associated Press
HAMLIN

He was also author of "Greek Revival Architecture in America," "Architecture: An Art for All Men," and "Architecture Through the Ages." He was editor of the monumental four-volume "Forms and Functions of 20th Century Architecture," to which he also contributed writings.

With his wife, Jessica (to whom he often dictated his prose), Hamlin wrote "We Took to Cruising," a story of their boat trips from their home in Stamford, Conn. to Florida.

Hamlin became an instructor in Columbia school of architecture in 1916, a professor in 1947. During many of his 38 years at Columbia he was also librarian of the Avery Architectural Library and the Fine Arts Library. His father was also a professor of architecture at Columbia.

OTHER DEATHS: Charles W. Moran, 43, San Diego builder, and his son, Charles, Jr., 17, in crash of their private plane Oct. 7 near Ensenada, Mexico; **Edward A. Richards**, 77, president of the East New York Savings Bank, Oct. 14 in Mattituck, L.I.; **Robert Marsh**, 85, pioneer Los Angeles developer, Oct. 1 in Los Angeles; **Clifton M. Eisele**, 63, real estate developer around Washington, D.C. and Avon Park, Fla, Sept. 18 in Avon Park; **S. E. Stonebraker**, 75, real estate man and builder in Washington, D.C., Sept. 23, in Washington; Architect **Grosvenor Atterbury**, 87, a fellow of AIA and inventor of one of the first prefab systems using a hollow concrete block, Oct. 18, at Southampton, L.I.



Long lengths of Permaline pipe reduce the number of required joints—speed installation.

Long Lengths, Easy To Join . . .

L-M Permaline Fibre Pipe Is Profitable To Use

L-M Permaline fibre pipe cuts labor costs about 2/3 on the average house-to-street sewer job. This is because Permaline is so easy to handle, easy to install.

Permaline pipe comes in 5-, 8-, and 10-foot lengths. It's light, tough, strong, and it's *root-proof*! Joints are quickly and easily made by simply tapping the tapered end of the pipe. No cement, no calking—just drive it!

Once you install Permaline pipe, it's in to stay. It can't rust, shatter, crack, or leak. Permaline pipe is not harmed by hot water, detergents, acids or alkalis.

Complete Line

Permaline is available in solid pipe, 2 to 8 inches diameter, for sewers and drains; perforated for field drainage, footings, and septic-tank beds. Full line of couplings, fittings, bends and adapters to connect to soil or sewer pipe. Over 150,000,000 feet of Permaline are in service.

Get complete information. Mail the coupon or ask your plumbing distributor to get in touch with us.



Joints are quickly and easily made by simply tapping together—no cement, no calking.



This seal is your guarantee of recognized quality in Bituminous Fibre Pipe.



LINE MATERIAL COMPANY
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L-M PERMALINE
BITUMINOUS FIBRE PIPE
for better sewers and drains

LINE MATERIAL CO.,
Milwaukee 1, Wisconsin

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with complete information on
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Company _____
Address _____
City _____ State _____
Type of business, please _____



PROMOTION BROUGHT 17,000 LOOKERS TO JOHN HALL'S NEW \$8,900-\$9,700 HOUSES. BAGGED 80 BUYERS

Giveaway house contest backed by ad campaign sells 80 homes in month in tough Phoenix market

One of young (31) John Hall's customers isn't going to pay a cent for his house, but Builder Hall doesn't mind a bit.

He offered to make a present of the house (including closing costs) to the buyer with the best completion for this sentence: ("I bought this house over all others because . . .") Result: 17,000 lookers and 80 sales in four weeks—a level so encouraging Hall thinks his year's sales (Sept. to Sept.) may bounce up to 800 units (they sank from 600 in 1954 to 230 in 1955).

Hall poured a whopping \$16,000 into a month's newspaper advertising of his 303-house development—and the giveaway contest.

Even in the bargain-rich Phoenix area, Hall's house looks like a bargain.

His campaign was aimed at his \$9,500 model (3 b/r, den, 2 b) which VAs for \$200 down plus \$195 closing costs and \$74 a month, FHAs for \$850 down plus \$225

Horace B. Newell



WHIRLY-BIRD HELPS SELL HOUSES

Helicopter boosts sales; buyers get birds-eye view

In Cleveland, Eaton Homes refused to take a summer sales slump for granted. Builders William Risman, Henry Lefkowitz, and Harold Gootrad sold 60 houses in two Sundays by giving would-be buyers a look at their house and its location from the air.

Every customer who put a deposit on one of the \$9,995, three-bedroom, 795 sq. ft. houses (as well as many who just looked like good prospects) was taken aloft for 5 min. in a rented helicopter.

In two Sunday afternoons, 299 people took rides. The builders attribute 50 of the 60 sales to the attraction of the helicopter (which cost them only \$432). Crowds totaled more than 5,000, and traffic through the model houses was up for weeks.

closing. Hall also offers models at \$8,900 (3 b/r, 2 b, front 1r), \$9,100 (3 b/r, 2 b, rear 1r) and \$9,700 (3 b/r, and den, 2 b, rear 1r). Area ranges from 1,300 to 1,500 sq. ft.

Says Hall: "This campaign proved to me what was wrong with my approach. Why, five years ago, if we spent \$25 advertising a house, we thought it was too much. Today home builders need to merchandise as hard as cigarette companies."

Rent-buy options move unsold houses in sticky market

What to do with the unsold house?

"Rent it, and give the renter an option to buy it," says R. H. Grant, president of Los Angeles' Moore-Built Home, Inc.

This spring, 10 of Grant's \$15,150-\$15,450 houses were vacant (a common predicament in the area where unsold houses totaled 5,600 in June). Today, all are occupied.

Instead of spending an estimated \$6,000 on new furnishings and advertising, Grant offered to rent the houses for one year at \$150 per month, with some \$500 of the \$1,800 year's rent being credited toward a down payment if the renter decides to buy.

Grant has about \$13,000 invested in three rent-buy deals (interest generated by his plan sold seven of the 10). The \$13,000 represents the difference between his \$11,000 conventional mortgages and the sales price. He feels sure his three renters will buy because they are making expensive improvements on the houses. If not, Grant is counting on normal inflation to make the houses easy to sell.

Transferees to Southern California are prime prospects for rent-buy plans of two other builders, Andrew Hamer Homes, and Crown Construction Co. (Hamer has rented 59 out of 88 built; Crown, 28 out of 70). Both aim at transferred families who have houses listed for sale back east, or who want to look around the area longer before buying.

Both impose stiff requirements. Hamer rents only to families who can afford the down payment if they want to. Crown insists that renters qualify as buyers first. The builders' investment (over the mortgage) ranges from \$2,200 to \$3,000 per house. Under both plans, renters build up \$420-\$600 in down payment equity during the year.

Searchlights, circus tents for kids win New England buyers

Souped up promotion sold 42 houses in two weeks for Builder Alphage Ferland of Woonsocket, R. I.—where such hoopla is rare.

Woonsocket has been hard hit by the textile industry's slump in New England as well as last year's floods. So Ferland and his six sons (NAHB Regional Vice-Pres. Armand J.,

Roland O., Albert J., Raymond J., Arthur M. and Eugene H.) mapped an advertising campaign that included nearby (11 mi.) Providence and Pawtucket, too.

A two week teaser campaign whetted interest, searchlights and night lighting extended the sales hours and candy-striped, toy-equipped tents provided entertainment and care for children while parents decided. City and state officials attended the opening ceremonies, which were broadcast by a local station.

The \$13,700 three-bedroom, one-bath houses look larger than their 1,040 sq. ft. because they have an attached garage and breezeway on the 90' x 100' lots.

New satellite city rising at site of Greenbelt town

A new satellite city—planned to become one of the nation's largest—is rising on the outskirts of Cincinnati, in what once was part of Greenhills, one of Uncle Sam's three mid-depression ventures into planned communities.

The developers: youthful Marvin L. Warner

Marsh



WARNER

Cincinnati.

and Joseph Kanter, who built a four-apartment building in Birmingham after World War 2 and parlayed an initial investment of some \$12,000 into a housing empire that now includes Birmingham's swank Essex House, a similar project in Indianapolis of the same name, a big project in St. Louis, another in Dayton and two in

Cincinnati.

At Forest Park, 13 mi. north of downtown Cincinnati, Warner and Kanter have already built the first 400 of a planned 10,000 homes on 3,700 acres. The site will also get a regional shopping center, office buildings and a 239-acre industrial park.

Houses from \$14,000 to \$60,000 are planned. Different priced areas are to be separated by dividers like ridges, streams and plantings. Park areas within the housing area will be reserved to keep the natural beauty of woods and streams. Other tracts will be set aside for a civic center and recreational space. (Forest Park adjoins a 2,000 acre public

continued on p. 101

McHale & Hill

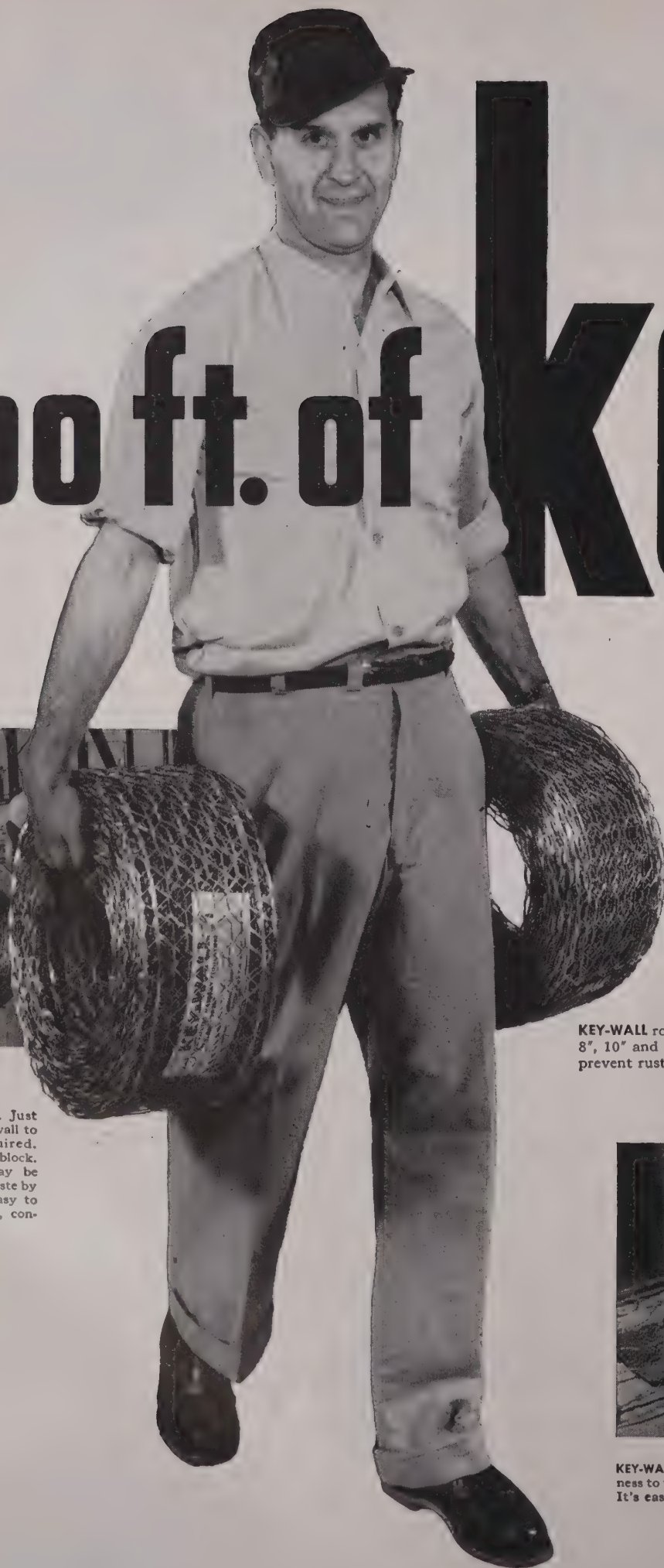


\$23,700 RANCH MODEL FOR FOREST PARK

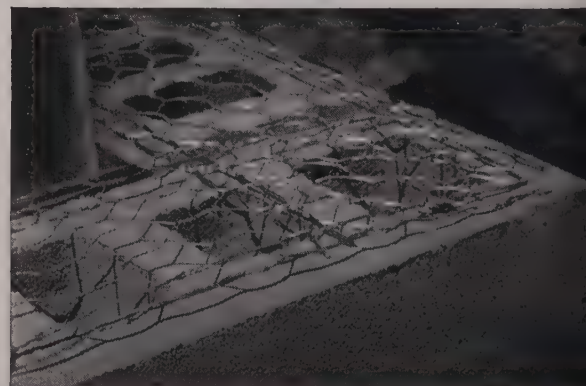
300 ft. of Key



SO EASY TO USE. Just unroll it on the wall to the length required. Lays flat on the block. Short pieces may be used without waste by lapping ends. Easy to fit around pipes, conduits, and ducts.



KEY-WALL rolls are 150 ft. long. It is made for 4", 6", 8", 10" and 12" wall thicknesses. It's galvanized to prevent rust; always gives maximum bond.



KEY-WALL is lapped at corners without adding thickness to the joint; without special cutting and fitting. It's easy to build up Key-Wall reinforced corners.

continued from p. 93

park, granted by the US to the local park district.)

Lot sizes will vary from about 7,000 sq. ft. to 12,000 sq. ft., with 65' minimum frontages. In addition to Warner-Kanter's construction, other improved lots will be sold to builders and to individuals who want to build houses. All architectural design and landscaping is subject to review by the developers, who retained the original land planner, **Justin R. Hartzog**, to draft the master plan for Forest Park.

When government decided to break up the Greenbelt properties in 1952, local capital organized the Cincinnati Community Development Co. to attempt a similar project, but failed to get going. In 1953, it contracted with Warner-Kanter to buy and to develop the property subject to CCDC approval of a master plan. **Vogt, Ivers, Seaman & Associates**, Cincinnati engineers and architects, produced the plan in cooperation with Hartzog.

Centex invades Chicago, will donate schools

Centex Construction Co. of Dallas is extending its operation to Chicago.

President **Tom Lively** announced that his giant housing firm has bought 1,500 acres 18 mi. northwest of the Loop, incorporated it as the Village of Elk Grove, will build 6,000 homes there in the next four or five years. Estimated investment: \$175 million.

Centex (3,214 starts in 1955) follows another of last year's biggest builders to Chicago—**F&S Construction Co.** of Phoenix started a tract 8 mi. from Elk Grove earlier this year.

Lively said his firm will build three-bedroom, brick-veneer homes, priced from \$15,000 to \$20,000 with FHA, VA and conventional terms. He expects most buyers to come from the booming industrial area around nearby O'Hare Field. Centex will put in all community facilities, including schools which Lively said the company will donate to the school district. Two reasons: 1) This way, Lively guarantees schools will be phased in with his sales ("You can't sell houses without schools"), and 2) The independent school board cannot divert to other projects money Lively might donate for new schools.

As Centex moved into Chicago, it finished 440 homes near San Francisco with no further plans there. It is still building in Orange County, Calif. but has only 200 lots left there, will continue building in four tracts around Dallas. Centex also has contracts for two Capehart military housing jobs, totaling 680 units.

Basement 'builders' show' features brand names

Irving Rose's new \$16,600 models tie their sales appeal to that of dozens of nationally known brand name products in them.

In three Detroit projects, Rose has installed a miniature builders' show in the model house basement. Pegboard panels, 4' x 6', display point-of-sale material provided by manufacturers. Any name brand product used can have its own display at no charge. Several manufacturers sent men to staff the display on opening day and answer customers' questions.

Rose's advertising features trademarks or logotypes of the nationally known companies. Signs outside the models plug the "as advertised in LIFE" theme.

Said Rose: "This helps our salesmen by giving them a merchandising tool easily and quickly explainable to prospects."

Mr. Subdivider:

Why be a worry bird about



SEWAGE LIFT STATIONS?



What kind of sewage lift station equipment should *you* consider for *your* subdivision? How much should you pay for it? What type can you operate and maintain at the lowest cost? Are you familiar with the dozens, perhaps hundreds, of variables that can dictate the "how, why and what" of lift station installations?

You have enough worries without trying to become a "sewage pumping" specialist. So why worry? . . . there's a much easier way! Contact Yeomans! Yeomans has been specialists in sewage pumping for over half a century . . . Yeomans has the largest engineering staff, the most experience, and the most complete line. Yeomans will welcome the opportunity to help your engineers answer the many difficult questions you will encounter . . . questions such as:

- 1 What about ground conditions? If you run into quicksand, do you use the same type of lift station equipment you would for rock, or clay, or sand?
- 2 How does topography of the land enter in? What kind of equipment will you use for hilly or rolling land? . . . for level land?
- 3 If you're interested only in a temporary installation, what type of equipment should you buy? . . . how much should you pay? On the other hand, if you're planning a permanent installation, what type of equipment should you use? . . . how much?
- 4 What if you want to move your lift station equipment after a couple of years? What type equipment is easiest to relocate?
- 5 What about maintenance? What type equipment should you use if you can provide only a part-time handy man?
- 6 Does it make any difference whether you pump sewage directly into a sewage plant . . . or just into an interceptor line? Do you use the same equipment in either case?
- 7 What about power availability? Will you have to run in special power lines, or can you buy equipment that will operate from regular 110 volt lines? What do you do in case of power failure?
- 8 What about flash floods or cloudbursts? How do you allow for such acts of Nature?

YEOMANS SEWAGE LIFT STATIONS

Yeomans . . . 2003-8 North Ruby Street, Melrose Park, Illinois

☐ Please furnish information relative to sewage lift station equipment.

name _____

company _____

street _____

city _____ zone _____ state _____

our engineer is _____

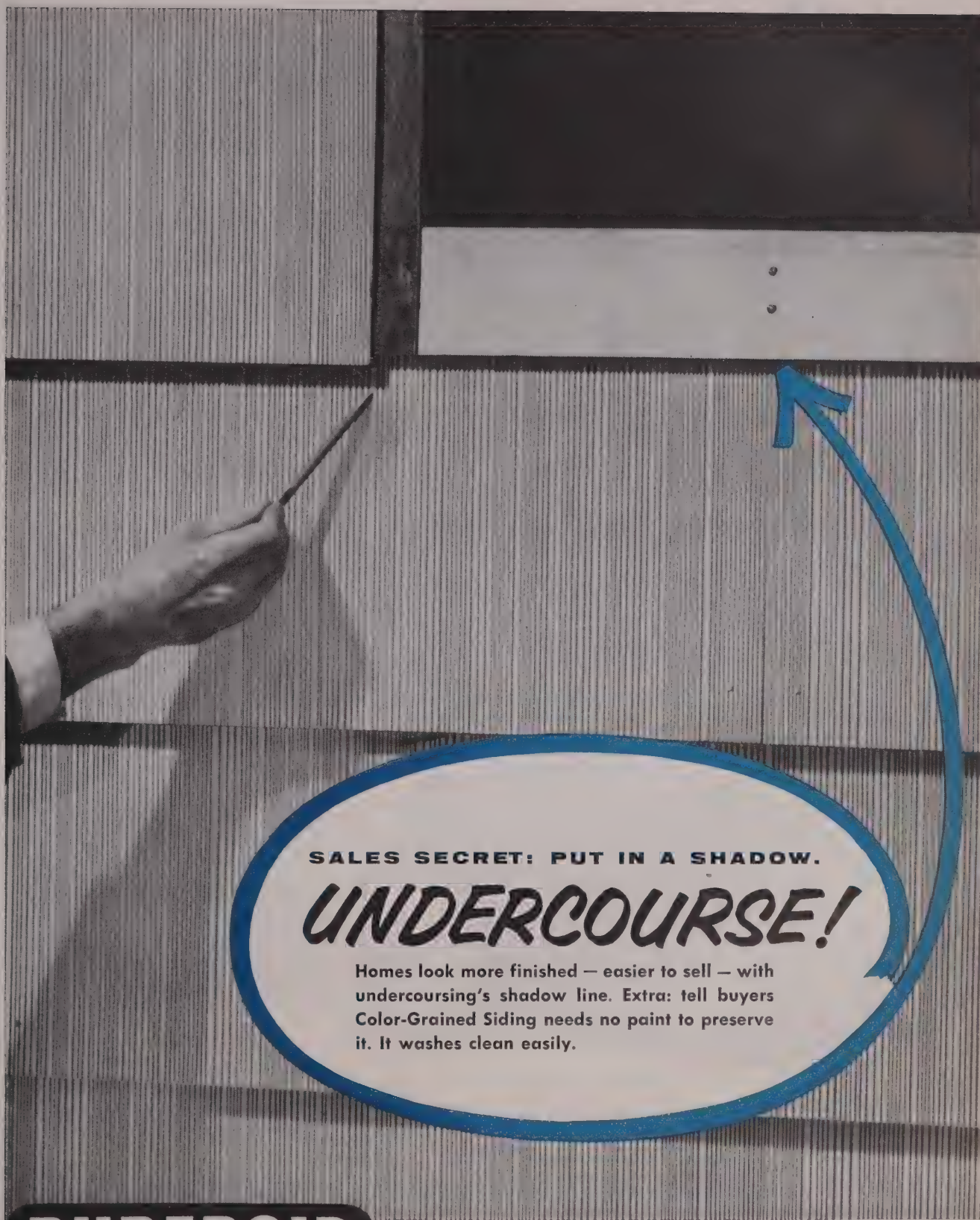
Yeomans has the answers to these questions and many others. Use this coupon to request information on Yeomans Sewage Lift Stations.

CRA

"This is the best," say 2,000 contractors. This Los Angeles fairgrounds model house was built to say *one thing* . . . "This is the finest." It shows in the imaginative planning, craftsmen construction . . . and the selection of quality materials . . . like Crane fixtures.

The new look in bathrooms. No longer is the bath the unmentionable room. It's the room guests see and judge. No wonder 2,000 contractors put their best foot forward with this Crane-equipped bath.





SALES SECRET: PUT IN A SHADOW.

UNDERCOURSE!

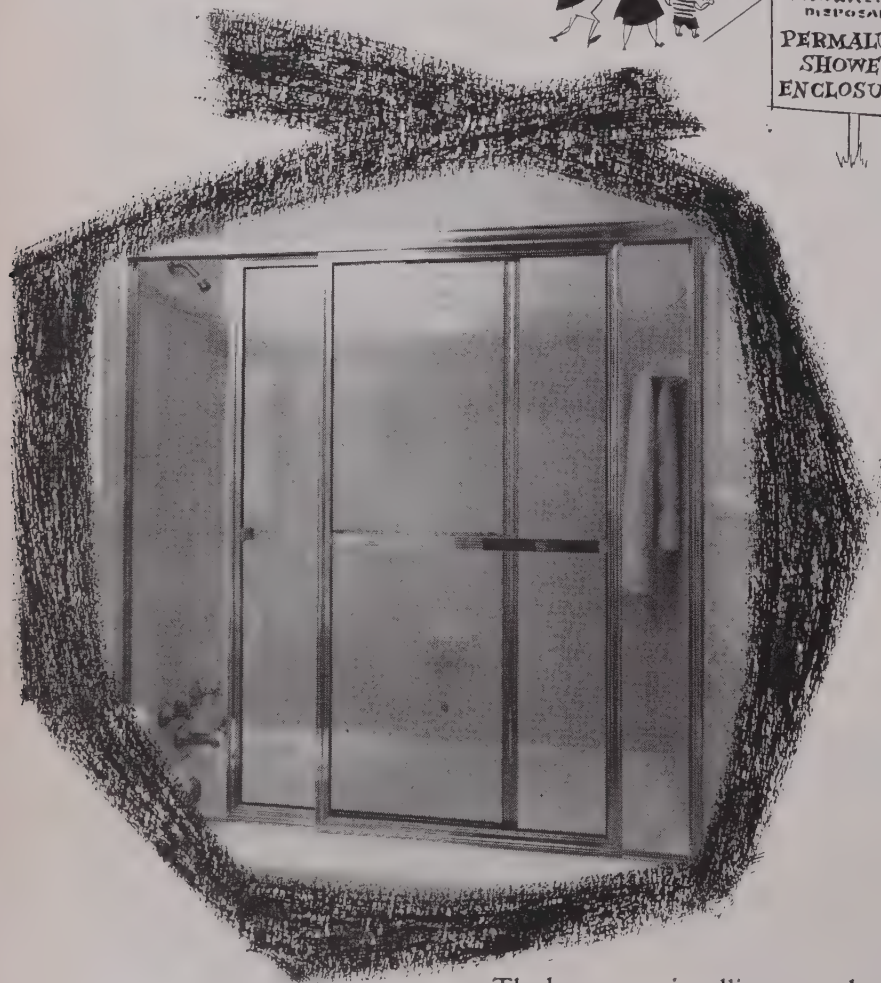
Homes look more finished — easier to sell — with undercoursing's shadow line. Extra: tell buyers Color-Grained Siding needs no paint to preserve it. It washes clean easily.

RUBEROID

Color-Grained **AUTO-CLAVED SIDING**

ASPHALT AND ASBESTOS BUILDING MATERIALS

For your free Undercoursing Brochure write The RUBEROID Co., 500 Fifth Avenue, New York 36, N.Y.

the house with the **Best Features**Sells
Faster

The key person in selling a new house
is the wife. The key room in her decision is *the bathroom*.

Nothing you put in your house will hit the housewife
where she lives like—Permalume Shower Enclosures.

Nothing moves houses faster than—Permalume Shower Enclosures.
There is a Permalume enclosure for *every tub, every house, every bathroom*.

Permalume Shower Enclosures are made by Shower Door
Company of America—the world's largest manufacturer of shower doors,
tub enclosures and daylight shower stalls. All Permalume enclosures
are unconditionally guaranteed for 17 years.

Winner of the First
Sunrise Magazine Award for
Excellence in Engineering and Design



WORLD'S LARGEST MANUFACTURERS OF SHOWER ENCLOSURES

57 HOUSES FOR '57

Your annual design award (Oct '56) stimulates new ideas and thinking in the field of home building.

Heartiest congratulations upon another successful HOUSE & HOME feature!

HERMAN H. YORK, AIA
Jamaica, N. Y.

PLASTICS IN HOME BUILDING

Your article on plastics in home building is one of the finest presentations I have seen. It synthesizes beautifully the components and potentials of plastics, and shows to a high degree how imaginative and creative architects can work hand in hand with manufacturers to produce a higher grade product. Congratulations on your whole September issue.

BARNETT B. BERLINER, *Berliner & Associates*
Designers & Engineers
Brookline, Mass.

... The introduction was very good. Its description of the different types of plastics and their uses could not have been made clearer. It should give any person who reads it a good over-all picture.

The SPI plastic house competition entries shown were very good, but I do believe the other winners deserve mention.

R. A. HERMES
Hermes & Colucci, Builders and Designers
Cincinnati

Reader Hermes' firm won a first prize for "best feature area utilizing plastics" and a second prize for "best house utilizing plastics." In the latter classification third place went to John Dyal of Boston and an honorable mention to Theodore D. Bower of Seattle.—ED.

MARKET IN DES MOINES

You refer to Des Moines' housing market (Sept. News) as steady. Best seller a three-bedroom one and a half bath for \$16,000.

The facts are that new construction has slowed down considerably because a number of new houses have been unsold for several months and we have the same tight money market in Des Moines that appears to be elsewhere.

If any one and a half bath houses at \$16,000 are being built in Des Moines, we do not know of same and I am sure the number is very limited.

W. W. BURNS, *Assistant Vice President*
Home Federal S & L

INVALUABLE

We did not renew our subscription when it ran out a few months ago. Now we find that we are missing out on invaluable information.. Therefore we want a new subscription to HOUSE & HOME.

D. L. QUATRELLA
Well Built Sales, Inc.
Bridgeport

WIRING ROUND TABLE

Congratulations on the Round Table on house wiring! Will reprints be available and at what cost?

continued on p. 118

WHEN YOU SEE THIS KIND OF WORKMANSHIP,
EXPECT TROUBLE...



GOOD workmanship is one of the most important factors in preventing leaky brick walls.

Good workmanship includes filling the bed joints and head joints—wetting the brick—and backplastering the face brick.

Expect trouble when mortar is dabbed only on the corners of the brick, even when the head joint is slushed.

Because it is so workable, Brixment makes it easy for the bricklayer to use

enough mortar to completely fill the joints, and still lay the brick easily and accurately to the line.

Brixment mortar has greater plasticity, higher water-retaining capacity and

bonding quality, greater resistance to freezing and thawing, and freedom from efflorescence. Because of this *combination* of advantages, Brixment is the leading masonry cement on the market.

BRIXMENT

LOUISVILLE CEMENT COMPANY, Incorporated, LOUISVILLE, KENTUCKY

continued from p. 114

This type of study may help us give better wiring to every home owner.

R. L. PAVEY
Wooley Electric Supply Co., Inc.
Cincinnati

Reprints are available at 5¢ each.—ED.

We used your Wiring Round Table Report as a basis for local discussion here and from it evolved the resolution that we hold a "Round Table" of our own along similar lines with industry people and other allied groups participating.

I believe the most good from the efforts of people at the national level can be best achieved only if followed through by local action and that is the thinking behind our proposal to hold our own "Round Table" with the aim of applying the same theories to our own local situation.

J. E. CURRAN, Supervisor
Duquesne Light Co., Pittsburgh

We have established better wiring committees in each of the seven division points served by our company. These committees consist of a leading electrical contractor, building contractor, dealer, banker, utility representative and others. Members of this committee will receive copies of your "Round Table Report."

H. W. HOBSON, Asst. Gen. Sales Mgr.
Kansas Gas and Electric Co., Wichita

AUGUST COVER

It was most flattering to see the photograph of the Dettner home on the cover of the August HOUSE & HOME. The photograph is certainly a handsome one; but it does seem a shame that in a professional magazine no credit is given.

HENRY HILL, AIA
San Francisco

H&H is glad to credit Architect Hill for the handsome patio home shown on its August cover and until now unidentified.—ED.

MORE GOOD TO MORE PEOPLE

I appreciate very much the aggressive, wide awake work you are doing for the home building industry. The package mortgage article in the September issue will serve as another milestone in the march of the merchant builders' progress in serving the home builders of the country.

By your promotion of the package mortgage you are helping us do more good to more people sooner than we otherwise would be doing.

ALBERT BALCH, Community Builder
Seattle

TERMITE ADVICE

As a member of the BRAB committee, I believe your summary "Termites" (Sept. p. 186) should have placed most emphasis on tight foundation construction.

Attention should also be called to the necessity for trade marking metal shields and the requirement of a five year replace-

continued on p. 122

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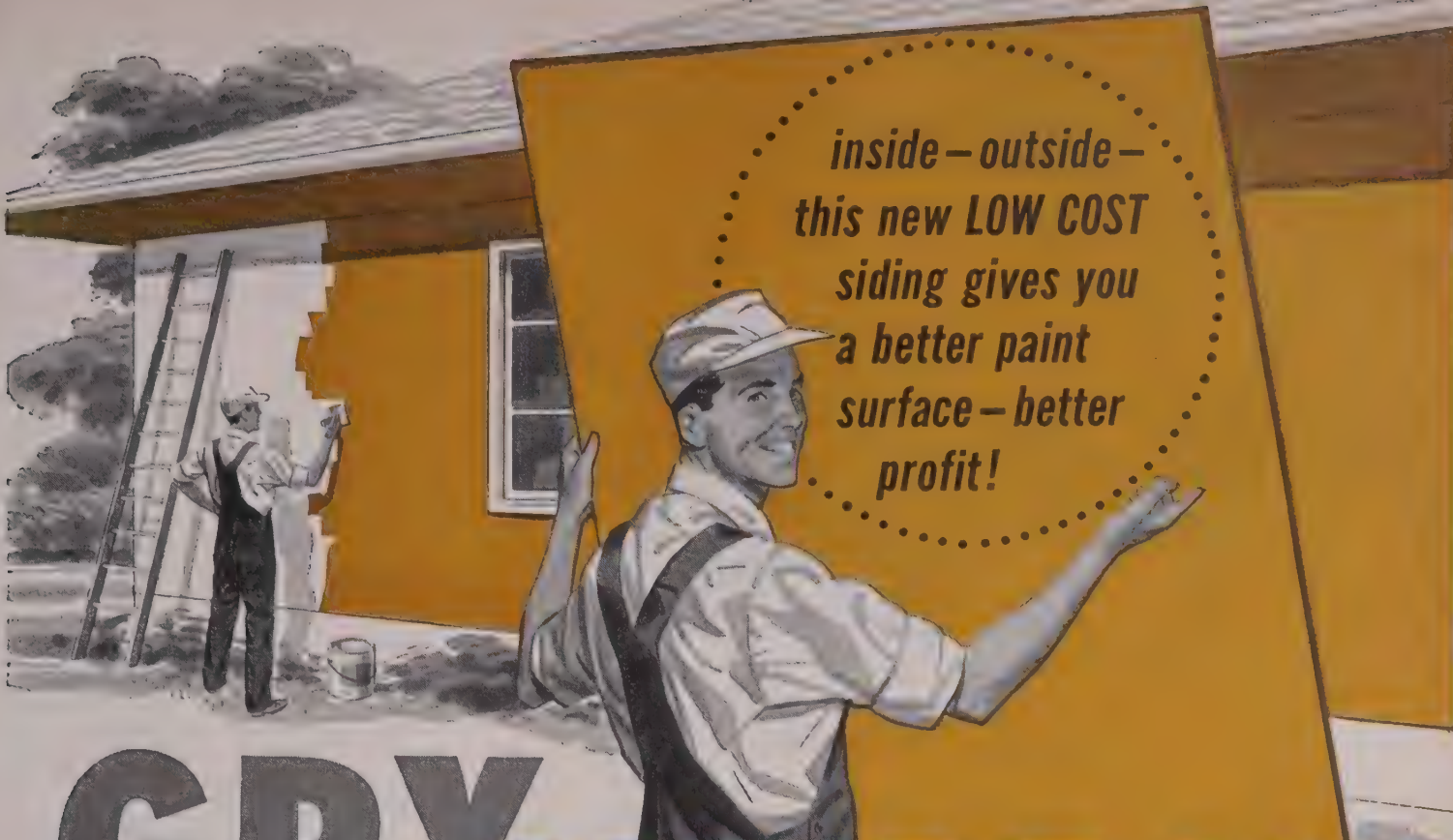
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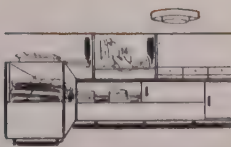


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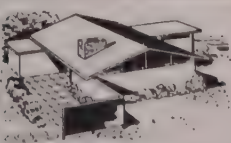
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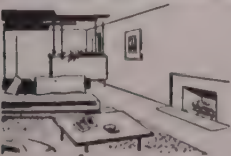
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continued from p. 118

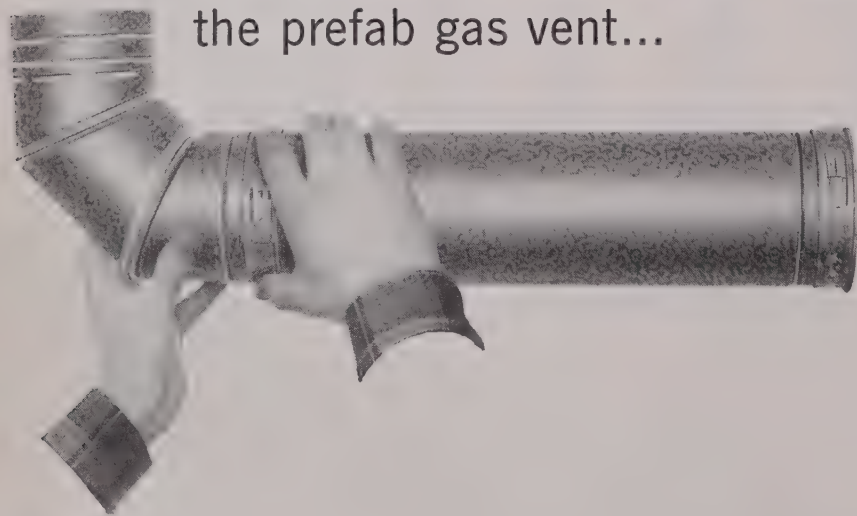
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ment-of-damage-clause where soil poison is applied. These precautions are to prevent racketeering.

In the case of "wood treatments," impregnations of sills and structural framing on concrete foundations are also required as protection against both decay and termites. Trade marking is required to insure effective preservative treatment.

THOMAS E. SNYDER
Washington, D. C.

NON-ESSENTIAL SQUEEZE

Ever increasing FHA, VA and city building requirements are pricing houses out of reach of the average prospective small homeowner. This is the primary problem facing us today. There are other problems such as high down-payments, lack of mortgage funds, etc., but steps to alleviate them will help only temporarily unless something is done about costs. I believe the agencies involved have been increasing minimum requirements with the best of intentions; however, what good is landscaping, gutters, downspouts, sidewalks, driveways, paving, curbs, and many many other desirable requirements if a man can not afford the house?

Let's ease today's too rigid and too expensive FHA-VA minimum requirements. I'm not talking about cutting quality but I am talking about the elimination of non-essentials.

CHARLES WOODS, Builder
Dothan, Ala.

COORDINATED COMPONENTS (con't)

I read your well-prepared and timely story on "Coordinated Components" (June '56) with a great deal of interest... I would like additional copies to circulate to executives of my company. They will be put to good use, believe me.

VERNE W. BOGET
Gladding, McBean & Co., L.A.

NEW HAVEN CO-ORDINATOR

Your story on "Housing Co-ordinators" (Aug, News) left out one of the earliest examples of this new breed. New Haven has had a development administrator since February, 1955.

Edward J. Logue is a typical example of the "new kind of official" you wrote about. Formerly executive secretary to the mayor, and before that special assistant to Ambassador Bowles in India, Logue is the right arm of the mayor in action in the renewal field.

We have a team in New Haven second to none. Mayor Richard C. Lee, just 40, understands, supports and wins elections on redevelopment and renewal. Ed Logue is as able as any of the men in your August story.

H. RALPH TAYLOR
Executive Director
New Haven Redevelopment Agency

NEW WAYS

Through your excellent magazine, builders throughout the nation have learned many "New Ways to Build Better."

A. F. ODDSTAD, President
Oddstad Homes
Redwood City, California

NOVEMBER 1956

House & Home

Published by TIME Incorporated

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Remodeled house by Alfred Aydelott

HOUSE & HOME is published monthly by TIME INC., Time & Life Building, 9 Rockefeller Plaza, New York 20, N. Y. Yearly subscription payable in advance. To individual or firms (and their employees) engaged in building—design, construction, finance, realty; material distribution, production or manufacture; government agencies and supervisory employees; teachers and students of architecture and trade associations connected with the building industry; advertisers and publishers: U.S.A., Possessions, Canada, \$6.00; elsewhere, \$9.50. Single copies, if available, \$1. All copies mailed flat. Please address all subscription correspondence to HOUSE & HOME, 9 Rockefeller Plaza, New York 20, N. Y. When ordering change of address, please name the magazine and furnish an address label from a recent wrapper, or state exactly how the magazine is addressed. Both the old and the new address are required. Allow four weeks for the change. © 1956 by TIME INC. All rights reserved under international and Pan American copyright conventions.

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Volume X, No. 5





This is NOT a new house . . .

Nobody seeing this house would doubt for a moment that here is a fine example of 1956 residential architecture: it has everything that a good house for today and tomorrow should have.

Actually, believe it or not, this house is a very ordinary, 1931, frontporch, clapboard bungalow. Or, at least, it was just that until Memphis Architect Al Aydelott bought it and modernized it for his own use.

And in modernizing this little clapboard bungalow, Architect Aydelott in effect wrote the best remodeling primer of the year.

The first and most important lesson in that primer is this: *in remodeling, the new house sets the pace; to compete successfully, the old house must follow suit.*

That holds true in the re-planning, in the re-siding,

in the re-roofing, re-painting, re-flooring, re-wiring—in the re-lighting and in the re-heating, in the re-equipping and in the re-landscaping. And it holds true in the sum of all these—in the finished design that is the end product.

There is nothing far-fetched about the notion that the new house sets the pace in remodeling. In this particular case it is demonstrably true. For while Aydelott was fixing up this house for himself, he was also at work on several new houses—and the thinking he put into his new houses influenced this remodeling job in every respect.

Like his new houses, this one has an open plan; like the new ones, it has a glass gable end, a walled garden court for outdoor living, built-in storage, air conditioning, natural finishes contrasted with painted surfaces, and all the rest. In fact, this house ends up



... it just looks like one

almost indistinguishable from Architect Aydelott's new ones.

All this points to a second lesson to be found in Aydelott's remodeling: *modernization is more than replacement of equipment and materials—it means a house made modern all the way through.*

Sure enough, replacement is still important, and so is the addition of new finishes on top of old ones—the additive principle. But true modernization also calls for this basic approach: it calls for checking every detail in yesterday's house against the requirements of today's and tomorrow's living, making the old house as nearly as possible like the new.

Skeptics may ask whether such radical modernization can ever be worth its cost. The answer will be different in each case; in Aydelott's case the answer is that when he added up his purchase price and re-

modeling costs he had spent \$3,000 *less* than the insurance appraisers said the remodeled house was worth!

And for that he built himself a place near his office in town (where empty lots are no longer available); he built in an old neighborhood in which all houses were different and many had real quality; and he built on a street that had all utilities right at hand, and on a lot blessed with big and beautiful trees.

On the next four pages you will see the ten major design changes Aydelott made to the old bungalow to bring it up to date—changes that apply, in principle, to any house-remodeling in the US.

And on the eighteen pages that follow, HOUSE & HOME takes a look at current practice, reviews the changes in finish, equipment, insulation, etc., that are basic to today's remodeling vocabulary.



Before: view from street

and from rear

Five big changes brought this exterior up to date



1 A place was found to park the cars.

In 1931 when the original bungalow was built, you could still park your car on the street. For today's new house, off-street parking is a must and so is a covered walk from the car to the front door. Aydelott's modernization solution: a cantilevered carport facing the street. It was cantilevered out 10' to overcome zoning restrictions that insist on 25' setbacks from the street for enclosed structures (the posts supporting the carport roof comply with the setback restriction). While the 1931 house had a front porch for outdoor living, the 1956 house has turned its back on the traffic-jammed street. And while the 1931 house faced its kitchen porch toward the backyard, the remodeled 1956 house orients all its living areas to the rear, integrates them with a new garden court.

2 Useless backyard was turned into real outdoor living room.

The existing lot was only 48' wide, and within that width there was no outdoor privacy at all. To make real use of the 4,000 sq. ft. of garden just outside his new glass walls, Aydelott started by surrounding the area with fences and perforated brick walls, went on to create patterns of paving and planting within the walled court. In no time at all, the old backyard had become a fine outdoor space. Sculpture shown in plan by Fazzini.



3 Painted clapboards were covered up with a natural-finish, vertical T&G siding.

To make the original bungalow look more formal, Architect Aydelott covered the existing horizontal clapboard siding with 3½" wide, vertical T&G Western cedar. This added to the apparent height of the house. The new siding was finished with bleaching oil rather than paint—a further attempt to give the house a more modern character. Louvered grille shown here is exhaust for attic fan which helps to cool house through hot Memphis summers.



4 Small windows were replaced by big areas of glass.

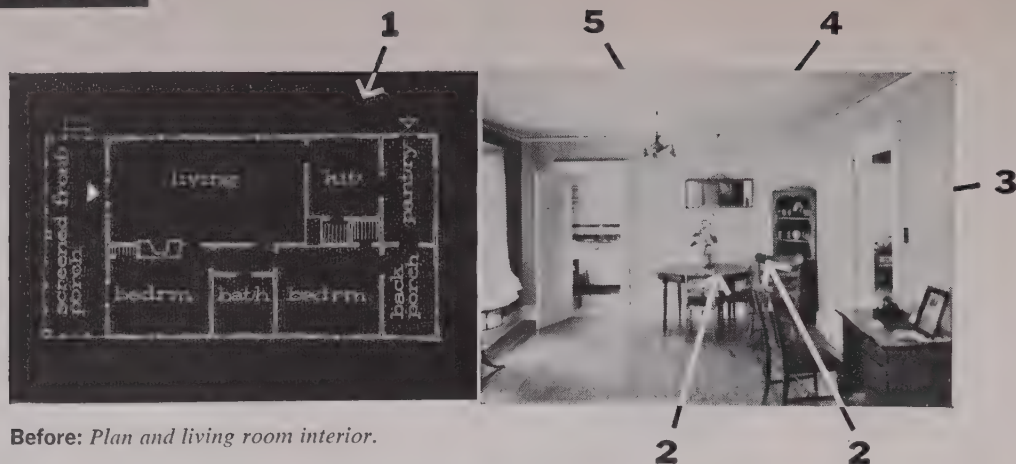
In the old house, the living areas fronted on the street, and only the kitchen porch faced the backyard. In remodeling the house, Architect Aydelott oriented all his living areas toward the rear garden, tore out the old back wall and replaced it with fixed glass and sliding glass doors. Result: complete indoor-outdoor living facilities with the garden serving as a visual and practical extension of the interior—a device that is part and parcel of new house design. Hip end of old roof was removed and ridge was extended out to project beyond new glass gable end. Composition shingles were used to cover old wood shingle roof, and plain fascia was nailed over ends of existing rafters.



5 And shallow eaves were turned into deep overhangs.

When windows were little more than holes punched into walls, the chief problem was not how to shield against the sun, but how to get enough sun into the house. As Aydelott remodeled his house—and gave it today's all-glass wall facing south—he found that he would need deep overhangs to keep out sun and sky-glare. So he extended his roof planes 4' to 6' out beyond the glass. This also helped to project his interior spaces into the garden.



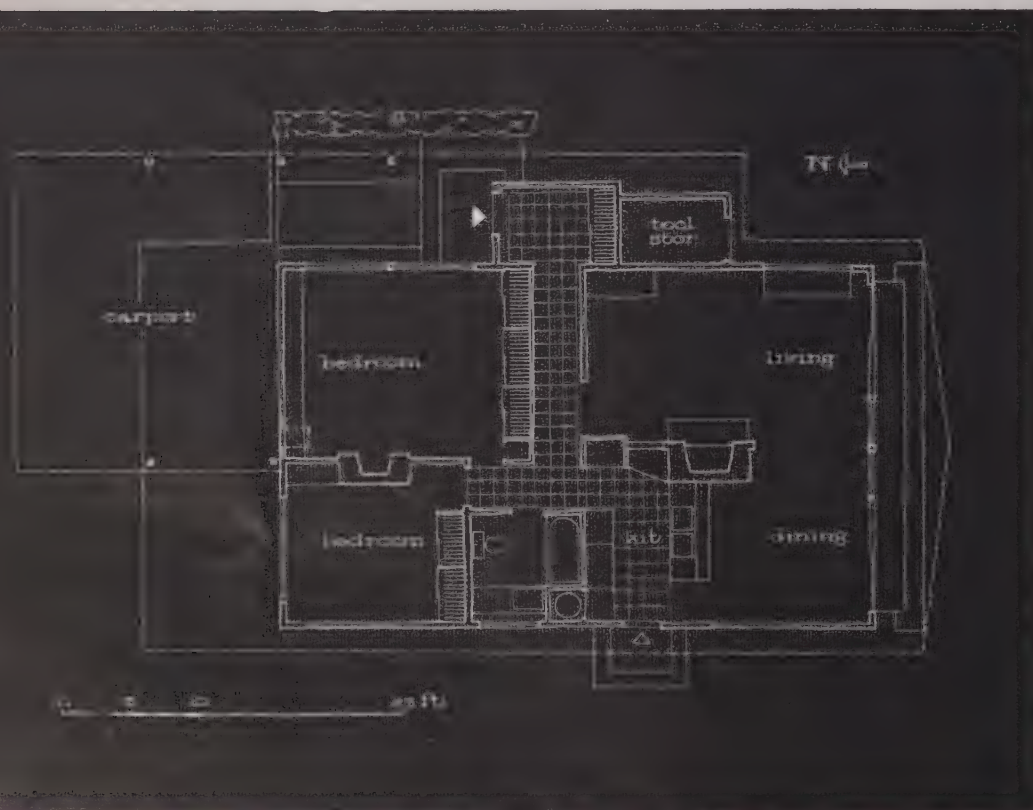


Before: Plan and living room interior.

And five changes produced a new interior

1 A cubicle-plan became an open plan.

To make his old house as livable as a new one, Aydelott introduced two drastic plan changes: First, he faced the living areas toward the rear garden; and, second, he turned the old cubicle-plan into an open plan. To save money, Aydelott relocated the kitchen to back up against the existing bath (which was retained in its old location). And to make the whole house more workable, he relocated the front door so that the front door would be in the center of the plan. Other plan improvements: tripling of indoor storage, provision of an entrance foyer, addition of a large storage bin for garden tools and outdoor furniture. Although these changes seem extensive, a comparison of the "before" and "after" plans shows that Aydelott preserved much more of the old than meets the eye.



2 Miscellaneous furniture was replaced by built-ins.

Nothing can be so space-consuming (and space-destroying) as free-standing furniture—especially chests of drawers and other storage units placed up against a wall. To make his remodeled house more spacious, Aydelott built in most furniture. The units shown here (in the master bedroom) contain all drawer space and a $\frac{3}{4}$ ton air conditioner built in at left. Existing fireplace was stripped of plaster and the old brick thus exposed was painted white.



3 Plain walls became textured walls.

To give his house more richness, Aydelott replaced some of the original flat plaster surfaces with materials of deep texture and warm color. Many of these textures—like the brick-work seen here—were found under the plaster in the original structure; others were added in the form of paneling; still others were introduced in the built-in furniture or sliding door closets—which, in this guest bedroom, were made of stiffened, perforated hardboard.



4 Flat ceilings were replaced by "cathedral ceilings."

There's much to be said in favor of a uniform 8' ceiling height—but visual interest is not one of its assets. Realizing this, Aydelott put two different ceiling heights over his house: he left the old flat ceiling over the bedrooms, but in the living area he raised the ceiling all the way up to the roof as is done in so many new houses. The resulting changes in height give his interiors an excitement lacking in the original house.

Picture shows louvers for attic fan over bedroom area. The fan extracts warm air from upper reaches of living room. Pass-through at left leads into kitchen, serves as a small bar.

5 And scattered lights became overall lighting.

Glass-walled houses have special lighting problems. One of the nighttime problems is how to kill reflections in the glass. When Aydelott replaced the obsolete lighting system of the old house with today's built-in fluorescents and flexible, below-eye-level fixtures, he also installed powerful outdoor floods to kill the mirror images in the glass. The outdoor lighting scheme made his garden a visual extension of living area at night as well as during the day.



Builders set out to tap one-stop market, instill higher ethics in a chaotic industry

How big the home improvement market may be nobody knows for sure (see panel, next page). But whatever its size, the evidence is overwhelming that builders are taking more and more interest in it.

Their efforts center on two aims:

1. Instilling a much higher standard of business ethics in a sprawling, chaotic trade that the Better Business Bureau still calls its No. 1 source of gyp complaints from the public.

2. Becoming "one-stop modernization operators" to replace the plethora of storm window salesmen, plumbing repairmen and patio builders whose present market dominance means most home owners must deal with a squad of fixup contractors instead of one.

The very wary buyer

The state-of-mind of today's would-be buyer of modernization or additions is still much affected by 1954's celebrated FHA scandals (the chief result of which, apart from stopping construction of FHA rental housing, has been 893 criminal indictments and 476 convictions for assorted skullduggery—mostly in FHA repair loans).

Partly to combat such views, and partly to tap a neglected market, more and more NAHB chapters are starting remodeling institutes. The record so far:

In *Los Angeles*, the Building Contractors Assn. has enrolled "about 80" members in its nine-month-old modernization chapter headed by Pasadena's Clinton Brainerd. Another 125 have asked for literature about joining. In 1953, the BCA helped the district attorney's office get evidence against repair-loan sharpies during the FHA investigations. Now, BCA says, the publicity attending Operation Home Improvement is luring some of the suede shoe fraternity out of enforced retirement. So the chapter is sending names of its members to suppliers and banks for their guidance in referring customers to responsible contractors.

In *Chicago*, the Metropolitan Home Builders Assn. formed a Home Improvement Contractors Council in March '55, has enrolled some 50 members who pledge themselves to "promote integrity in advertising, use honest salesmanship, refrain from unethical sales practices, advise customers against unsightly or impractical changes, to complete all work according to plans and specifications."

More information for home owners

In *St. Louis*, the Home Builders Assn. opened a community improvement information center in a vacant store front amid a neighborhood of aging homes. Its one-man staff offers free information to the public on remodeling—even suggestions on materials for do-it-yourselfers. Simultaneously, the home builders are remodeling two 50-year old houses, trucked away from a slum clearance site to city land as a demonstration of what can be done with the bones of old homes.

In *Seattle*, home builders formed a Home Improvement Contractors Council in September, under chairmanship of Builder R. K. Baird. Aim: to help steer buyers of home fixup to "responsible, completely qualified contractors." The council's 15 members plan an advertising campaign in two local newspapers pitched toward getting the public to call home builders for names of competent contractors. The remodeling division will tell callers of at least two qualified builders who operate in their neighborhood.

More builders are adding a little remodeling to their new house business. NAHB Economist Nat Rogg, even in a survey heavily loaded (49%) with big-volume (51 or-more-units-a-year) builders (who are not nearly so well equipped as small-volume builders to do remodeling), found that 26% of his reporting panel of 590 builders did *some* home improvement work. The 26% said remodeling averaged 8% of their dollar volume, but one builder out of 25 reported rehabilitation or remodeling constituted more than 20% of his dollar volume.

What builders report who have tried fixup

Builder Ernie Zerble of Mason City, Iowa, says he is doing mostly remodeling this year. Zerble, head of NAHB's so-called "One to Twenty Builders Council," averages five to ten homes a year. But as a third generation builder, he figures he has an advantage in remodeling that comes from knowing the hammer and saw end of the business thoroughly.

Robert L. Larsen of Seattle, last year's regional NAHB vice president there, got into remodeling in 1952 when Reg. X clamped down on his high priced custom house market. Since then, repairs and remodeling have ranged from 60% to 75% of his business; the remainder is new houses to order.

Larsen feels the key organizational problem for builders going into remodeling is the need for a "new type of job supervisor." He explains: "He must be well educated, and diplomatic besides knowing all about construction. He must know how to get along with the customers who won't stand for water or electricity cut off for long periods or a lot of mess or rough language. He must know how to coordinate the work."

Business from new house customers

In suburban Philadelphia, Builder Bud Arters has found the same thing the key to building up a sizable addition and modernization business since February (61 jobs by Sept. 1—39 on houses Arters originally built and 22 on other houses). The key man is Fred Jones, executive vice president of Arters' Custom Division, Inc. (Arters feels the word custom carries prestige and has psychological advantages for a fixup operation). Jones, who for many years owned a hardware store, is a do-it-yourselfer familiar with power tools. For a long time, he had been advising his retail customers on repair and modernization. A quaint Philadelphia custom—new homes built without carport or garage—provides Arters with much of his home improvement work. Happily, he finds carport jobs the most profitable of all. They are clean cut, easy to organize and estimate, involve no tricky demolition and interfere little with the customer-family.

In Cleveland, Builder Jerry Squires got into remodeling a year ago through Operation Demonstrate (H&H, Nov. '55, p. 166), when he supervised renovation of the two model homes displayed on the Cleveland mall. Now, Squires has 11 carpenters working full time on remodeling. Many of his jobs come by word of mouth or from customers of his roofing company, a subsidiary which operates from a separate location. (Arters, too, finds word of mouth advertising his best sales puller.)

Near Los Angeles, Builder Clinton Brainerd, head of BCA's remodeling council, found three years ago that he was operating in a town with only 50 lots left—all involving bad building problems or astronomical prices. Brainerd did not want to move his business away from San Marino and spend all day driving. So he switched to modernization. Says Brainerd: "I am swamped

all the time." He expects to do about 150 jobs this year, with prices ranging from \$3,000 to \$10,000. His most common work, in order: 1) modernize kitchen—average \$3,000; 2) family room or lanai—average \$5,000; 3) master bedroom suite open to patio—\$5,000 to \$7,000; 4) bathroom—\$2,000 to \$3,000.

Like most other builders who do modernization, Brainerd says fixup profit margins are much higher than those on new construction. (Another builder says fixup profits should average 35% compared to 15% on new homes.) But Brainerd speaks for the chorus when he says: "You really earn it. You spend more time for the amount of money involved than you do on new building. It takes patience and coordination to get trades in and out in one or two days and handle the customers."

One-stop is still anybody's market

The one-stop modernization market is still up for grabs despite these nibbles at it by home builders.

In Wichita, Kans., for instance, a combine of 14 contractors—none of them home builders—formed House and Home Services Inc. to go after the one-stop fixup business after reading HOUSE & HOME's story on this idea in the Nov., 1955, issue.

In Omaha, 33 home improvement firms, financiers and suppliers, formed the Nebraska-Iowa Home Improvements Contractors Assn. to promote ethical conduct and warn customers against fly-by-nighters. "There have been some get-rich-quick

boys who have been in and out of business in Omaha. We want to make people aware of the many substantial home improvement firms here," says President Jacob Brookstein.

Lumber dealers who, many builders feel, have profited most by Operation Home Improvement, are developing a prototype of a new type of retail store to make materials-shopping easier for home owners bent on improvements. The idea is to pep up the do-it-yourself market, which shows signs of flagging in some areas.

At least two major appliance manufacturers are working up plans to promote package remodeling of kitchens to sell more refrigerators, stoves, disposers, etc. Hotpoint, which is selling more than half of its new package appliance units (stainless steel counter, dishwasher, disposer, four or five storage drawers, four surface burners and an oven) to home builders, says: "There is going to be more and more package remodeling for reasons of economy and saving of time. The big trend is toward built-in kitchens. It will be even more so tomorrow."

Starting last month, Hotpoint began explaining to dealers its new "kitchen specialist program" aimed at grabbing the one-package kitchen remodeling business. The company hopes to sign up builders, plumbers, appliance dealers or repair agents who will offer inclusive kitchen remodeling including architectural service, plastering, painting, plumbing and electricity. During a six-month test of this scheme in Connecticut, Hotpoint says one kitchen cabinet outfit boosted sales 100%.

How big is home fixup? Contractor-potential looks like \$5-6 billion

How big is the home improvement market? How much of it has potential business for contractors? How much is paint, wall-paper or other straight materials-and-equipment purchases by home owners? How much is do-it-yourself?

Reliable statistics provide no direct answers to any of these questions. Even so, the notion has gained wide currency that home improvement, somehow, has ballooned into a \$15 billion-a-year market which in 1956 may be bigger than new home building.

Close scrutiny of the available government figures raises questions as to the accuracy of such pronouncements—though it does not positively disprove them. More important, it shrinks the segment of potential business for the organized building industry (i.e. contractors) to about \$5 to \$6 billion. To understand how and why, it is necessary to take a short excursion back in time.

Census made estimate in '54

In 1954, a Census Bureau study (H&H, Feb. '55, News) made it clear that previous federal figures had vastly understated the size of the over-all home improvement and maintenance market. Instead of \$6.8 billion a year that Commerce and Labor Depts. had been reporting on the basis of building permits, Census made it clear that home owners alone were spending at least \$7.2 billion a year on fixup. (But the study also indicated only \$3.4 billion of it goes to contractors, while \$3.8 billion is probably do-it-yourself.)

Adding expenditures on rental property (figured arbitrarily at about half of home owners' outlays), Economist Miles Colean projected expenditures on existing dwellings to about \$12 billion a year. This struck other experts as reasonable, considering that the US housing inventory of some 50 million homes was worth between \$400 to \$500 billion. It meant upkeep outlays were running from 2 to 3% a year.

This Census study, conducted from January to May 1954, involved a small sample of home owners who were asked how much they had spent in the past few months, thus relying heavily on their memory as to outlays. Even so, it was such an eye-opener it is probably chiefly responsible for triggering today's burgeoning interest in modernization.

But Census broke its figures down two ways. Both show the contractor-potential is sharply limited:

FIXUP SPENDING BY NONFARM HOME OWNERS

By Class of Expenditure:

Materials purchased	53%
Contracts completed	46.9%

By purpose of expenditure:

Repairs and replacements	42%
(Median outlay: \$30)	
Alterations and improvements	47%
(Median outlay: \$56)	
Additions	11%
(Median outlay: \$165)	

The first breakdown indicates that owners spend more than half of their fixup billions on materials—everything from a pound of nails or rental of a floor polisher to buying a costly appliance.

Most owners spend little

The second breakdown shows, first, that about 70% of owners spend something on their homes. But it shows most of them spend relatively little. Repairs and replacements are aimed at conserving property. Usually, they are remedial, like painting a wall, mending a fence, replacing an outmoded appliance. Alterations and improvements involve substantial changes in design or arrangement inside a house, but do not affect the outer walls. Additions involve a change in the line of an exterior wall or roof.

Obviously, there is not much contractor-potential in repairs and replacements. Only 11% of such work cost over \$200 per house;

only 3% over \$500. For alterations and improvements, 23% of owners spent over \$200; and 75% of the total dollar volume fell in the \$200-up racket—a better market for the industry.

Additions, equally obviously, are a good market for contractors. Practically all cost over \$200 per house; better than 90% cost over \$500.

Two other studies corroborate the Census profile of home improvement:

1. The Federal Reserve's survey of consumer finances for the same year shows that 41% of home owners spend nothing for maintenance and improvement. But it shows 2 million families spending \$1,000 or more (8%) and another 2½ million spending between \$500 and \$1,000 (10%). Good contractor-potential here—the more so because the Fed's study does not include appliances whereas Census did. But it still leaves 80% of home owners spending less than \$500 a year on their houses.

2. FHA's latest (1954) breakdown of Title I repair loans (which it says is still valid) shows only 21.6% for additions and alterations. The figures:

Insulation 12.1%	Exterior finish. 14.1%
Altrns, adtns . 21.6%	Interior finish . 8.6%
Plumbing 8.1%	Miscellaneous . 12.9%
Roofing 4.5%	Nonresidential . 3.4%
Heating 14.7%	(includes garages, barns)

Sliced any way you like, the surveys cluster around this rough conclusion: fixup is a huge market, but only about half of it involves the kind of work that is let to contractors.

The claim that home improvement may hit \$15 billion, it is explained, rests on Colean's \$12 billion estimate, plus an assumed increase based on reports from repair lenders that their business is growing. Trouble is, such reports are fragmentary. As one OHI aide recently put it: "A projection of a projection, allowing for wind drift and advertising speed."



Roger Sturtevant

NEW HOUSES STARTED THE OPEN PLAN

Although open planning was tried as long ago as 1910, its use has become widespread only since the war. The new house shown above (Roger Lee, architect) is a good example of open planning. The dining area is actually small but seems large because it is open to both kitchen, at right, and living room, in background. The visual device which separates living from dining areas is a change in levels.

The open plan does away with non-load-bearing partition walls, to make rooms bigger and circulation easier.

When you can see out of the immediate area you're in, even a very small house seems spacious. And when you aren't confined to narrow doorways between rooms, you can move much more freely from one area to another.

Without solid partition walls, there are still two good ways to separate different areas. One is to use visual devices—something that catches your eye without stopping space. Examples are open shelves and changes in floor or wall finishes. The other way to mark off rooms is by movable devices—screens, sliding doors—which give you the choice of opening your space into one big room, or dividing it into smaller units.

You can often open up the plan when you modernize. As Ernie Zerble (a new house builder who also remodels a number of houses, not shown) points out, there's usually only one interior bearing wall. So the other nonload-bearing walls can be knocked out almost at will.

Photos (below & opposite): Armstrong Cork



THE REMODELED HOUSE can have an open plan just like a new house. In this modernized house, as in the new house shown above, living, kitchen and dining areas are essentially one. The fireplace is the only element of separation. The kitchen counter, lower left, can be used for serving directly to the living area simply by raising the shade. Shelves under the counter are accessible from the living room side. Dish storage unit, with louvered doors, is cantilevered from fireplace for easy cleaning of floor.



BEFORE: Old-fashioned upstairs hall was narrow due to large closet opening off it. Closet was sacrificed to make hallway more spacious.



AFTER: Upstairs has feeling of a large, alcoved room when all doors are open. Built-ins replace closet. Rail adds to open feeling.

Opening the plan makes this remodeled house look like new



BEFORE: Living room sitting area was crowded around the fireplace. All traffic to kitchen had to pass through living and dining rooms.

This old house got an open plan both upstairs and down. Once a conventional, poorly-planned house of the 1920's type, it was modernized to have many new house advantages.

The dark, cramped living room (left) was changed to an open area with the feeling of plenty of space (below) by the removal of two walls.

The first wall was between the living and dining rooms. It was non-load-bearing and could easily be taken out. Then the old mantel was removed from the fireplace, and the plaster scraped off. A coat of white paint and a new hearth completed the change of the fireplace wall. The dark flat "beam" at the ceiling line is a non-structural, architectural treatment which marks the separation of the living and dining rooms.

The second wall supported the old stairs. When it was removed, new studs were put in to carry the stair load. The living room gets extra space and a nice vertical accent because the new studs were left exposed.



AFTER: Passage from front door to kitchen is a short, direct line. Entire living-dining-kitchen area is now practically one space, so fixed traffic lanes are avoided. Old flooring was simply covered with linoleum embossed with the pattern of random width flooring.

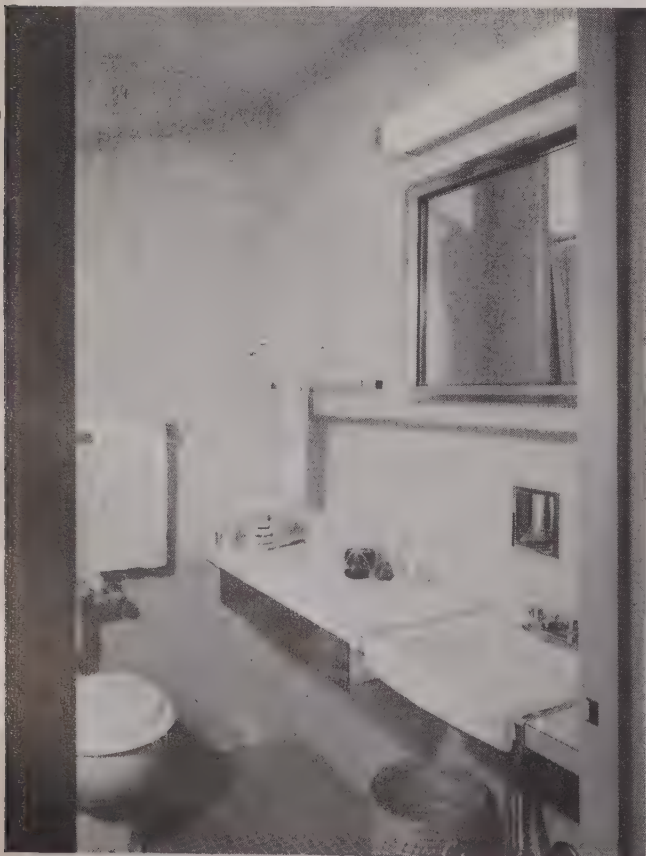
Morley Bner



NEW HOUSES HAVE LUXURY BATHS

As the above photo shows, today's bath is a well-finished room. Recessed lighting, casual chair, make it more comfortable.

© Ezra Stoller



REMODELED HOUSE adds luxury features to old bath.

Remodeled bathrooms make old houses look like new ones

More space, built-in counters and storage facilities, bigger mirrors and special lighting make the bath one of the most luxurious rooms in today's new house.

The bath shown at left (William D. Concolino, architect) is a good example of this trend. From the skylighted ceiling to the rug on the floor this bath has been designed to include much more than just well-placed fixtures.

Today's modernized bath can have many of these same luxury features, as the photo below, left, shows. In this remodeling a vanity counter was built-in, with a drawer beneath for storage of special make-up items. Lighting was improved by a fluorescent strip above the new wall cabinet.

The case study (below) dramatizes the changes that modernize a bath. The remodeled room has all new fixtures, but that is only part of the story. A partition wall between tub and toilet gives the tub a certain amount of privacy and the lavatory has been set into a counter-cabinet. Like many new houses, this remodeled one has laundry units conveniently located right in the bathroom. One of two windows was lost in the modernization process.



Photos: American Standard & Sanitary

BEFORE: Old bath, though big, is stark and ugly.



AFTER: New finishes, built-ins, make over old bath.

County Photo Service



NEW HOUSES TAKE ADVANTAGE OF COLOR

Houses with mixed levels, like this new split (Robert Buzen, builder), can acquire unity by planned painting. Here appearance was enhanced because the eave line was carried around the bedrooms and across gable end.

Remodeled house (far right) used same trick employed in new split-level, above.

First, however, the superfluous and unsightly porch was removed, and rear doorway was closed. A large picture window was added and the roof was reshingled.

But the magic started when the painting began. The second floor was treated as a separate unit, painted dark. Then the ground floor was painted white, with a 1" x 10" flat molding strip separating it from the upper floor.

White shutters (upstairs) and trim tied the two bands together, and foundation planting helped tie the house to the ground. With its fresh new exterior the house became a pleasant backdrop for outdoor living on a backyard terrace.

But before you repaint, read the important new advice below.



BEFORE: Rear of old house was tall and uninviting. There was no continuity between doors and windows.



AFTER: Skillful face-lifting gave house broader lines. Like a new house, it fits well into neighborhood.

Photos: American Home

Here is important, new advice on painting from the Forest Products Laboratory:

Good practice is to use the same type of paint originally applied on the house.

A change to a different type of paint may result in early failure through incompatibility. If therefore, a paint has given satisfactory service, it should be used in repainting.

How to switch from unsatisfactory paint

If a paint has given trouble, a change to a different type may be advisable. Even then, it is best to wait at least four years after the last repaint job before making such a change.

In repainting the basic rule is: paint only after most of the old paint film has weathered away. Always remember that coating thickness can build up danger-

ously if paint is applied too frequently, with resulting abnormal behavior that spells trouble and possibly costly removal of old paint by blowtorch or paint and varnish remover.

How often you should repaint

Paint's wearing rate pretty well tells you what to do: one coat not oftener than four or five years, or two coats not oftener than every six years, for white and tinted paints. One coat every six years is enough for dark-color paints.

How to change color schemes

When color schemes are changed, a couple of simple rules should be followed. The best practice is always to

use essentially the same paint for repainting that was originally applied on the house.

If white lead paint was used, a change from white to a tint may be made by adding colors-in-oil. However, colors-in-oil should never be added to white mixed-pigment paints. If such a paint has been used and a tint is desired, purchase the tinting-base paint made by the same manufacturer for this purpose.

Avoid switching from dark to light

A change from a white or light-color to a dark-color paint may be made without too much risk of failure, but a white or light-color should never be applied over a dark-color paint.



Lionel Freedman

NEW HOUSES HAVE INVITING KITCHENS

Kitchens today have a feeling of belonging to the rest of the house. (Note how dining-room windows continue into kitchen in photo above.) Because modern equipment and cabinets are better looking than ever before, the kitchen can be opened to other rooms. In today's best new houses the kitchen has provisions for many family activities, including dining, meal planning and play supervision. And it has plenty of light, both natural and artificial, to eliminate eye-strain and to prevent kitchen accidents like cuts from slicing on poorly lit counters (see wiring modernization, page 140). In addition to electric equipment shown here, handsome gas appliances are popular in many new homes. (Dan Kiley, architect.)

© Ezra Stoller



REMODELED HOUSE kitchen follows the trend set by new houses. The one shown above has good equipment, fine cabinets and adequate lighting. And even though there wasn't space for a family room, the pass-through into the dining room saves the housewife steps and lets her share more of her family's life.

The kitchen is the glamour room in today's new house and many an old house is remodeled because the housewife started by wanting a kitchen like the one she saw in a new house.

Not only do kitchen appliances work better than ever before, they look better. That means the kitchen doesn't have to be hidden anymore, but can be a command post, open to let the housewife observe everything that goes on inside and outside the house.

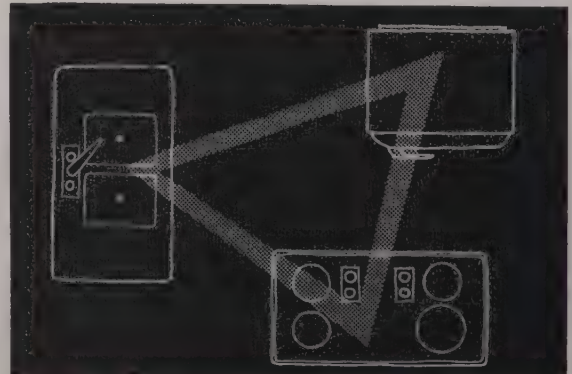
Today's new kitchens vary all the way from small ones with big pass-throughs to the dining room (below left), to big wide-open family room-kitchens like the one shown on the opposite page. But regardless of the type, when you modernize a kitchen you should make it look and work like new.

This means installing modern, time-and-labor-saving equipment. It also means arranging space and locating equipment according to today's best practice.

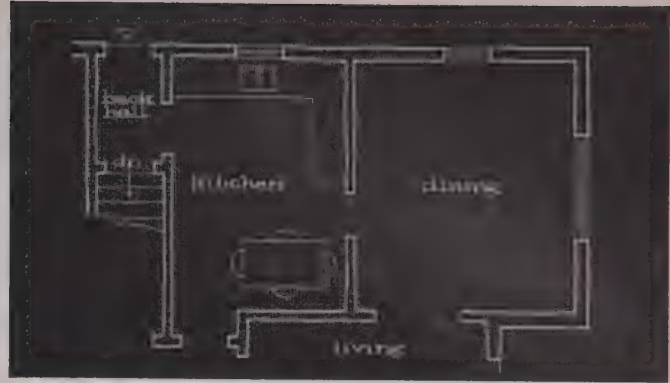
Ten specifications for today's kitchen

Kitchen experts, including those at the Cornell Housing Research Center, agree that a really up-to-date kitchen should have:

1. *An efficient plan.* Unnecessary steps between important work centers should be eliminated.
2. *Human-scale counter and cabinet heights,* to keep reaching and stooping to a minimum.
3. *Well-located storage space,* with items near where they are first used.
4. *Adequate daylight and artificial light.*
5. *Counter-top light in color* to make tasks like slicing food easier to see.
6. *Adequate storage space* for both packaged supplies and unattractive equipment.
7. *A feeling of spaciousness,* to prevent "shut-in" reactions that produce mental strain.
8. *Continuous lines and surfaces* to suggest ease of movement. Built-ins help do this.
9. *Harmonious colors and decoration.*
10. *Adequate ventilation and sound control* to keep cooking odors and sounds from other parts of the house.



Efficient work triangle can save many steps when used as basis for kitchen arrangement. Food moves from refrigerator to sink, then to range (with counter for mixing between). Appliances should be 4' to 7' apart.

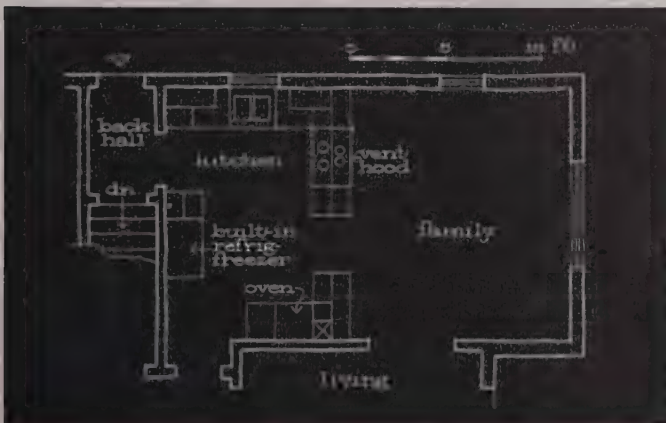


BEFORE: Old kitchen, shut off from dining room by narrow opening (above, left), gave the housewife little chance to be with her family when preparing meals. Crowded and cramped (above right) the old kitchen followed no particular planning principle. Together with the dining room, it was limited to functions prescribed by an old-fashioned way of life, when housewives did not do their own work.

Here's how to put a new kitchen-dining room in an old house



AFTER: Opened to the life of the house, the new kitchen is a pleasant place for the housewife to spend a good part of her day. Old dining-room is now an accessible "family-room," suitable for uses other than dining alone. Plan (below) shows how transformation was made.



First step in remodeling was removal of the partition between the kitchen and dining room. The counter was extended to form an island separating kitchen from the new "family-room." Top is of plastic laminate, doors of handsome natural birch.

Painted wood cabinets were torn out and birch overhead-cabinets were run around the kitchen. Old cabinets at ceiling were eliminated because they could not be easily reached. (Some experts claim high cabinets are ideal for dead storage, however.)

New equipment replaced old. Included is built-in oven at convenient height, range on island counter (to keep coffee . . . and other things . . . warm and in reach from both rooms). An exhaust hood and fan were installed to take out cooking odors.

Lighting like that in new houses was installed, including tube lamps below upper cabinets for counter illumination, and glareless diffused lighting on the ceiling for general lighting. Installation was designed by H. J. Scheirich Co., Louisville, Ky.

Julius Shulman



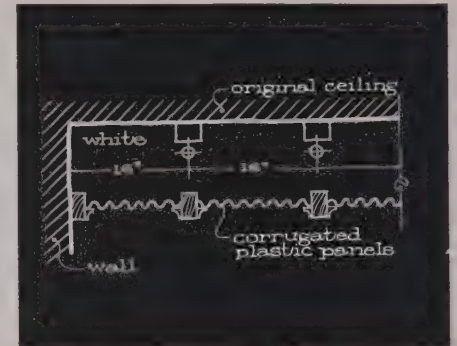
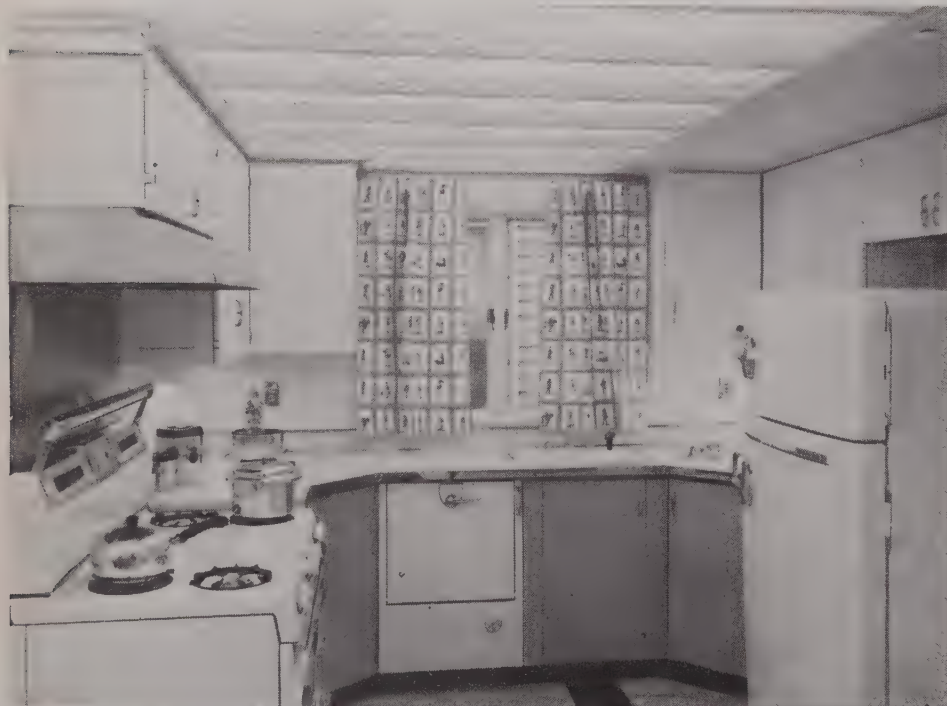
NEW HOUSES HAVE ADEQUATE POWER AND LIGHT

Modern kitchens, like the one above, take full advantage of electricity. This one has dishwasher, garbage disposer, overhead and counter lighting. Smith & Williams were the architects of this new house.

Today's big electric loads make better wiring imperative

The average family uses three times as much electricity as one of 15 years ago. Today's house has more appliances that demand more power (kitchen ranges are up from 6,500 watts to 12,000 watts) and it often has air conditioning too. So good remodeling should include a thorough check of wiring. Don't forget, a 5% voltage loss because of inadequate size of wire cuts all electrical efficiency in the house. For example it cuts a heater's warmth 10%, dims lamps 17%.

Most trouble comes from inadequate service conductors and equipment. Experts usually recommend three No. 2 wires with 100 amp equipment. The local light and power company will help you determine adequate service and inside wire sizes, and in some areas they will help your clients finance necessary electrical improvements.

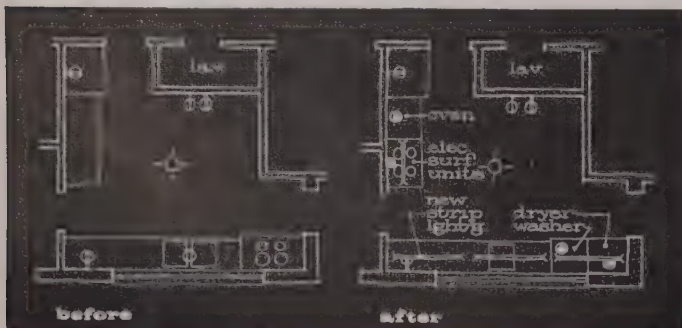


Detail (above) shows luminous ceiling in the kitchen (left).

Luminous ceiling solved two problems at once: first, it was an effective means of hiding a cracked plaster ceiling; second, it provides soft, glareless light.

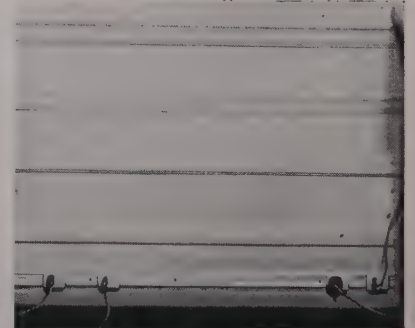
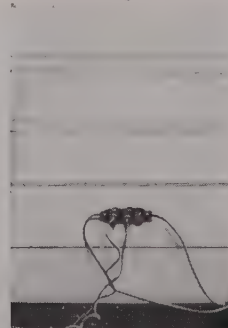
A wood framework was installed 12" below the old ceiling; plastic panels were fitted between. Tube lighting is mounted on the ceiling above the panels. Tubes are 16" o.c. to provide good diffused light.

REMODELED HOUSE kitchen (above) takes a lesson in adequate wiring from new houses. Detail section (above, right) shows simple luminous ceiling construction. Panels can be taken down to replace bulbs. Architects were Hastings, Willinger & Associates.



BEFORE & AFTER: Wiring diagram shows what should be done to supply power demands of modern kitchen. Not only are there more appliances, but each requires more current.

Photos: Bulldog Electric



BEFORE & AFTER: Many extension cords (above, left) overload circuit. Neatly spaced on prewired baseboard, danger is eliminated. Baseboard is surface-applied.

© Ezra Stoller



Big glass walls give the old house the new house's indoor-outdoor character

Today's modernized house can have indoor areas closely related to the outdoors. As in the new house, this means exterior walls with a large expanse of glass.

An ordinary window, especially when it's filled with small panes of glass, chops up the view and makes the viewer conscious of the wall. In new houses, with glass from floor to ceiling, the viewer can clearly see outdoors, and the wall as such seems to disappear.

New structural systems (lightweight steel, glued-laminated beams, concrete bents, and post-and-beam timber) with large on-center column spacings allow wider wall openings to make large glass areas possible.

Double glazing and improved heating and cooling systems reduce heat loss and gain, to make large glass areas practical.

NEW HOUSES MAKE THE MOST OF GLASS

In this new house (Architects Collaborative) the living room seems to continue outdoors, because only the structural members interrupt the broad expanses of glass. Door, right, (out of photo) leads directly outdoors from living room.

Photos: "American Home"



BEFORE: Main view from cramped dining room was to neighbor's house, right.

This old house was modernized to have glass walls like those in a new house. Before remodeling, the dining room (above) suffered from heavy, dark woodwork, and a dark wallpaper pattern in the wrong scale. Rear window had a good exposure but was very small.

After modernization, the entire rear wall is of glass. A light color paint on walls and woodwork and a refinished wood floor take advantage of all the light let in by the large area of glass.



AFTER: Rear wall was opened up with sliding glass doors, turning the view to the private rear yard. Planting box is removed, according to season, for access to the rear terrace.

Nudor



BEFORE: A bare stretch of concrete links house to the garage, (not shown). Remodeling will be completed in two stages.



AFTER: First stage. When complete, service conductors will be relocated and roof extended to shelter the new terrace.

This bungalow (left) opened its indoor living area to the outdoors by replacing two short double-hung windows with sliding glass doors (the first stage of a modernization program).

To make such a large glass area practical, this wall, which gets lots of sun, will need some kind of overhang or shade to give it sun protection. This will be part of the second stage of modernization.

A larger terrace and good landscaping will complete the change from a dull backyard to an enjoyable and up-to-date outdoor-living area.

Lionel Freedman



Textured surfaces are bringing warmth, color and interest back into new house design. And because such surfaces are available as finish materials, rather than structural ones, they can easily be made a part of modernization.

The key to low-cost modernization with new surfaces is *the additive principle*. By covering up old materials, rather than ripping them out and replacing them, the cost of remodeling is lowered and the old house begins to look like a new one.

Also, as the experienced remodeler will tell you, the biggest headaches in modernizing an old house are the hidden problems. You never know when you start ripping out tile, boards, or block how far you will have to carry this work. Cost estimates sometimes prove to be disasterously low.

Covering up has lots of advantages. When you start, you know almost exactly how much it will cost. When you finish, the results look as good as those of a new house.

There is no end to the number of products which make it easy to follow the additive principle today. The photos at the bottom of the next page are examples of just a few. With so many products to choose from, you can get handsome results.

NEW HOUSES HAVE TEXTURED SURFACES

As the above photo shows, new houses get both warmth and interest in the living area from the use of textured surfaces. This particular house (by Carl Koch and Associates, for Techbuilt, Inc.) contrasts varying lengths of natural cedar clapboards, left wall, with the old brick of the fireplace. Plastic tile covers the slab floor. Surfaces of natural materials, such as wood and brick, and surfaces of the new synthetics, such as plastic tile, make maintenance much easier and cheaper.

Ben Schnall



REMODELED HOUSE has the handsome look of a new house because of added textured surfaces. Architect Alexander Kouzmanoff specified vinyl floor tiles, 1 x 6 boards (on far wall) and a plywood room divider, right. This started as a typical expansion attic, postwar house.



BEFORE: Dull surfaces deprive house of color, warmth.

This room shows what you can do just by covering up



AFTER: Random-scored plywood walls and new parquet flooring give living room finish like a new house. A family room has been built on.

Among a host of useful materials are these which can be used for additive principle:

Non-ceramic brick is lightweight vermiculite with simulated mortar joints, applied to walls with adhesives. Sizes is $\frac{7}{8}$ " thick, 12" long, $1\frac{1}{2}$ " high.

Roll-on wood goes on like wallpaper. Only .0003" thick, it comes in 21 different grains.

Plastic-finish hardboard panels, $\frac{3}{16}$ " thick, are also available in a variety of grains. Sheets are 8' long.

Hollow-core hardboard panels with plastic finish are $\frac{5}{8}$ " thick, can resurface old walls or form new ones when applied to stud framing.



Non-ceramic brick



Roll-on wood



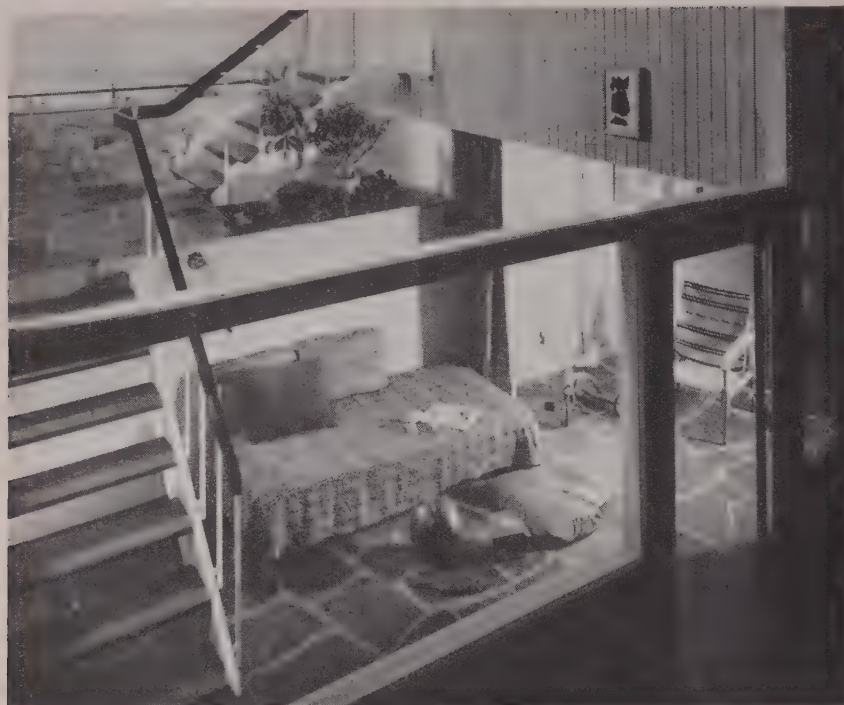
Plastic-finish panels



Hollow-core panels

Marsh-Wall Products

© Ezra Stoller



NEW HOUSES PROVIDE AN "EXTRA ROOM"

Second living rooms—or family rooms—as in the above house by Architects Collaborative, are among the greatest assets of today's good new house. In one-story houses, these family rooms are generally located near the kitchen; in split levels, they are often found on a lower level as in this hillside house.

Extra rooms are a crying need especially in the too-small house of the immediate postwar years. Only problem: where to find the space for them.

Apart from attics (see page 148), there are four good places where you might put the "extra" room to bring your remodeled house up to date:

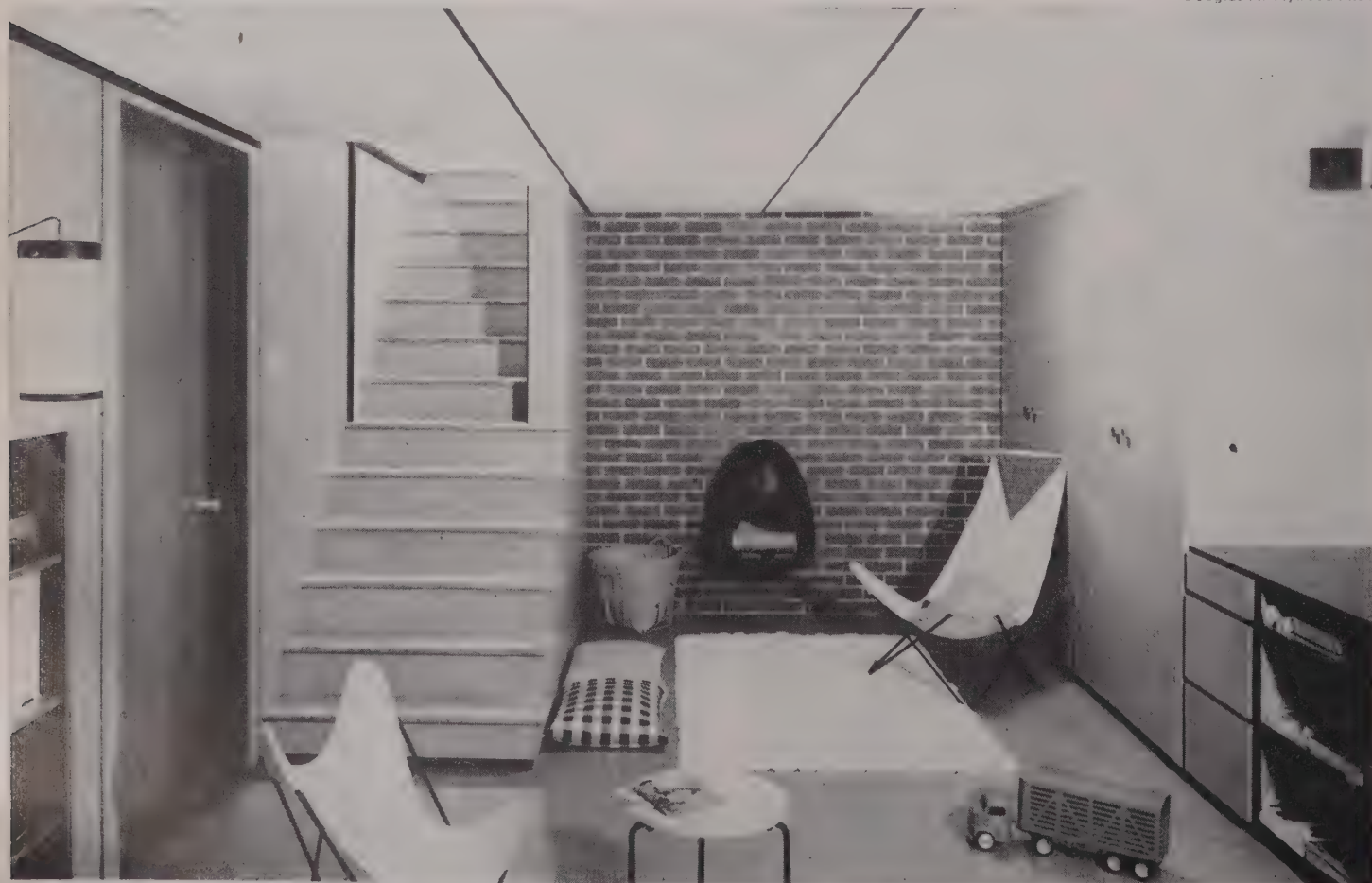
You might put it in the basement which has long been a favorite spot for a playroom. If the basement is dry (or can be dampproofed by furring out new wall-finishes and raising a new floor up on sleepers) this is probably the cheapest space to convert. Drawbacks: playrooms should really have direct access to the garden, and should be close to the kitchen.

You might close in a porch. Flexible window units can be used to turn most porches (including kitchen porches) into useful, year-round rooms.

You might use a breezeway between house and garage. This will generally be close to the kitchen (a good location for a family room) and may require only little work if it is already roofed over and paved.

Or you might put the extra room into an existing garage and build a carport to shelter the cars. This solution works well if the garage is attached to the house, if it can be heated without too much extra cost, and if the house is set back far enough from the street to leave room for a new carport.

Douglas Fir Plywood Assn.



REMODELED HOUSE basement can be made into a fine family room like this, complete with prefab metal fireplace, built-in storage units and cork tile flooring on a slab. In this modernization job the existing furnace was screened off by a new brick wall. All built-ins were made of resin-overlaid fir plywood which has a hard, smooth surface that is easy to keep clean. Here—as in new-house family rooms—easy maintenance was a primary objective. Owner and architect for this remodeling: Robert Billsbrough Price.



BEFORE: *Badly lit, badly finished basement had exposed floor joists and heating ducts.*

Most basements are used for little more than utilities, laundry and storage. Yet today's heating units are so small (see page 146) and built-in storage units are so compact, that most basement space can be freed for family room use. As for laundry equipment, many people feel that belongs nearer to the bedrooms anyway.

In this remodeled basement, storage facilities were provided in a single unit extending along one wall. Unit stores all the equipment needed for family activities.



AFTER: *Modernized basement is a complete family room with built-in storage, TV and record player. Low closet at right contains desk and file for records.*

You can find space for extra rooms in old basements and porches

Photos: George M. Ryan Studios, Inc. for Anderson Corp.



BEFORE: *Screened porch was usable for little more than six months out of the year.*

Screened porches are one of the great inventions of US house architecture, but except for some areas in the South they are useless for nearly half the year.

With the development of flexible fenestration, the all-screened porch has become an unnecessary luxury—for almost any porch can now be enclosed with a variety of window units that have their own built-in screening, can thus provide either cross-ventilation or wind-protection without loss of sunlight.

Here is a good example of how an old screened porch can be turned into a year-round extra room by substituting some of this flexible fenestration for the old screening. Several other window types are available for this kind of remodeling, among them: "jalousies, sliding glass doors, combinations of fixed glass and movable sash.



AFTER: *Modernized porch was enclosed with unit-windows, turned into all-year-round family room and dining area. Flexible arrangement of ventilating sash makes for better control of breezes. Awning-type units permit use of porch even in rainstorms. Concrete floor slab was finished with composition tile.*



Carrier Corp.

Here's how you can easily air condition an old house that has hot water heating

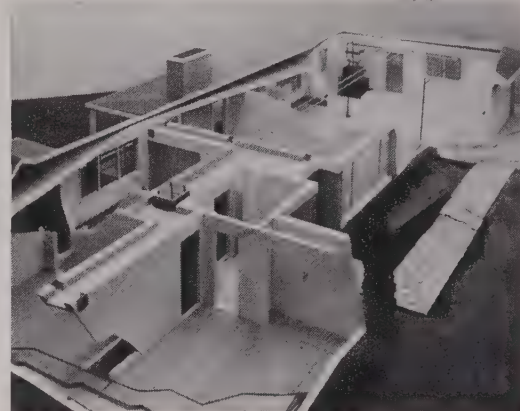
One of the toughest problems in bringing old houses up to date has been to provide central air conditioning when you have hot water heat.

Now the University of Illinois has come up with a new and simplified solution. The method applies to new houses as well as old, and to two-story houses as well as one-story. The system costs \$1,000 to \$1,400 for an average house, and operating costs "are comparable to those of other successful systems."

NEW HOUSES HAVE COMPACT UTILITIES

Nearly all improvements in heating and cooling systems have meant smaller units as well as more efficient ones. The advantage to new houses like the one above, is great, but to old houses compact utilities can mean even more. A remodeled house needs to have its heating and cooling needs recalculated when a room is added, walls are torn out, or even one picture window added. This is especially true for the many small postwar homes being done over today. In these small houses, almost any change poses a problem of space.

The new smaller boilers, heaters, air conditioners or other equipment make it much simpler to improve the home's comfort. They are compact, quiet, often quite handsome; they can fit almost anywhere in the house. Ductwork can be smaller and more flexible. Even in the smallest old houses, central air conditioners can now be installed to fit into the old heating system and take up little extra space.



Closed circuit of supply and return pipes joins water chiller with ceiling-hung convector. The same water recirculates all summer. Air is channelled to all rooms via the plenum formed by dropped hall ceiling. In winter, water is heated by boiler (upper right in model) and piped around the house to baseboard heaters.



Whipps

REMODELED HOUSE can have a compact, low cost air conditioning system. Photos show installation in a typical Levittown 1,000 sq. ft. house. One-ton unit is located in closet with hook-up to water lines and ceiling plenum in hallway. Total cost: only \$650. Work was by Levittown Home Improvement Center, Inc.

A chilled water cooling system is hooked up to a "forced convector" unit as shown above. The water chiller is located in a basement, utility room or similar spot.

The convector is hung from the ceiling near the center of the house and hidden in a plenum under a center hall or room ceiling.

The actual conditioning process is carried out within the convector, which contains a fan, filter and cooling coil. A constant stream of chilled water from the chiller circulates through the coil. Hot, humid air is pulled through the cold coil pipes, cooled and dehumidified, then sent through filter and plenum to high wall registers in each room.

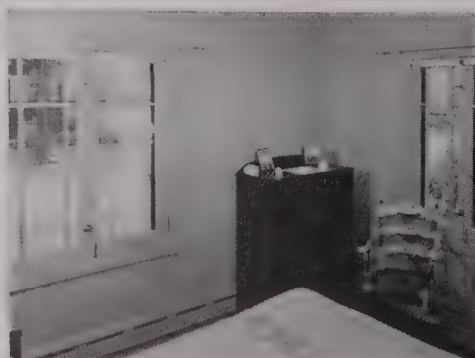
Works for two-story houses, too

The system is easily installed in two-story houses by using two convector units, one for each level. Only one water chiller unit is needed and the chilled water convectors eliminate the usual jungle of second-story air conditioning ductwork.

Perhaps the biggest advantage of the system is that the cooling installation does not infringe on the requirements for good heating, and vice versa. Engineers say that cool air should be discharged into rooms from high wall outlets, while heat should be supplied under the windows in outside walls. (Warm air rises, cool air falls.) The heating half of this requirement is met by a separate baseboard heating system around the perimeter.



BEFORE: Old-fashioned radiator took up a lot of space, stood out like a sore thumb in bedroom.



AFTER: Baseboard unit around outside walls provides better heat, takes up almost no bedroom space.

Wesley Bowman

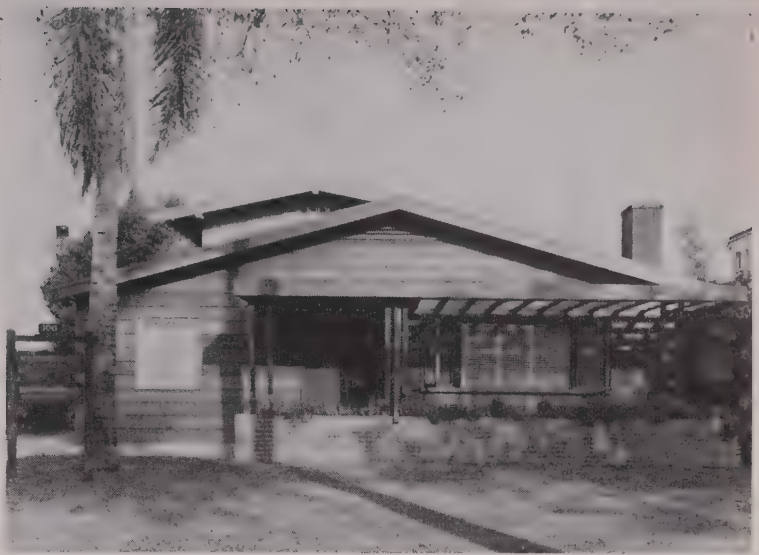
Hedrich-Blessing



NEW HOUSES SAVE ON UPKEEP

More and more people are becoming maintenance-conscious when it comes to houses. That is why so many new houses have turned to siding and roofing that requires little upkeep, and why so many new houses stress insulation to cut down on heating and air-conditioning bills (see page 160). The picture above shows a three-bedroom builder house designed by Burton W. Duenke and Ralph Fournier, and built near St. Louis. Vertical redwood siding in random widths was stained for easier maintenance.

Rod Daley



REMODELED HOUSE has natural wood siding, just like new Duenke house in St. Louis (left). Remodeling is by Henry Bertch in Pasadena.

New, low-maintenance materials bring old houses up to date

Roofing, siding and insulation account for a large part of all the annual remodeling dollars spent each year. One reason: the old house (like the new house) must appeal to more and more second-house buyers—people who know from bitter experience how much money can go into repairing a poor roof or badly finished exterior walls and into big heating bills caused by badly insulated outside surfaces.

To satisfy the growing demand for lower upkeep costs, manu-

facturers have emphasized permanent finishes (or pre-finishing). Creosote-base stains are becoming more popular as wood finishes, while paints are used more frequently for nonorganic materials. And new materials—like nail-on or clip-on brick veneer—are being used to upgrade the appearance of old houses and to simplify maintenance (see below). Among the new materials now on the way: glass fiber shingles and rolled roofing, both of which should be on the market by mid-1957.

Asbestos Cement Products



Asbestos shingles can be nailed or stapled to shingle strips on felt applied over old roof surfaces.

Levitt & Sons



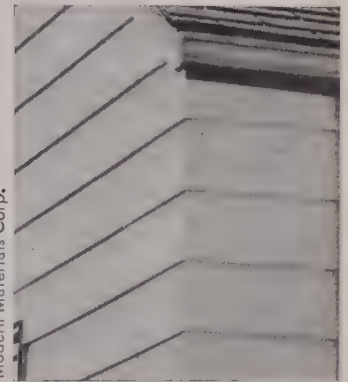
Striated wood shingles, pre-dipped in creosote-base stain, come in numerous good colors.

Jack Cash, B.C. Coast Woods



Asphalt shingles are inexpensive, now come with interlocking joints for greater wind-resistance.

Modern Materials Corp.



Aluminum siding has deep shadow lines, takes paint well. Aluminum shingles are available also.

Richards Studio



Grooved plywood is a fine covering for big areas. Similar hardboards have just reached market.

Structural Clay Products Institute



Clip-on brick veneer is 1" thick, looks real. Veneer-bricks are flat or L-shaped to turn corners.

Balsam Wool, Wood Conversion Co.



Bat insulation is good for attic remodeling, comes in standard widths to fit between rafters.

Owens-Corning Fiberglas



Glass wool, blown into noninsulated walls, checks heat loss unless it settles to bottom of cavity.

Attics are good expansion space.

But before attics can be made livable, you have to solve certain basic problems. For example:

Attics require insulation. This is a simple job, for insulation can almost always be stapled into spaces between rafters. (See page 147.)

Attics require light. Unless an old attic has existing dormers, some new windows must be provided. Best solution: glass gable ends. Reason: new dormers are expensive, would break up lines of existing roof, make the house look taller, narrower, clumsier.

Attics require finished floors. Most old attic floors are of wood sheathing, must be covered with sheet materials before you apply tile or block flooring.

Attics require ventilation. If there is no existing attic fan, a new one will help solve the problem of cross-ventilation. If you put all your windows into gable ends, a central attic fan may be a "must."

And attics require headroom-planning. Generally speaking, only the center of an attic has enough headroom to serve as an extra room. One solution (illustrated opposite): use low-headroom areas for built-ins, including beds, desks, dressers, chests and closets.

In attic remodeling, much depends on location of existing plumbing stacks, stairs and flues. If all three are found somewhere near the center of the house, it is generally easy to get two extra bedrooms and an extra bath into the average attic.

NEW HOUSES ARE REDISCOVERING THE ATTIC

Ever since the Techbuilt House (above) came up with its neat, glass-gabled attic plan, architects and builders throughout the country have gone back to experimenting with the traditional 1½-story house. Reason: attic space is cheap space.

Chief advantage of the 1½-story house over the 2-story house is that the former can be made to look long and low-slung—whereas the 2-story house (plus attic) will often look too high and too short on today's narrow building lots.

But to make the new 1½-story house look long and low-slung, most architects have stayed away from dormers that break up the sweep of the roof. Alternative solution: glass gable ends to light up and ventilate the extra bedrooms upstairs.

Such glass gable ends are easy to build either with king-post trusses (the post becomes the central mullion dividing the glass) or with attic trusses (a horizontal transom bar divides the glass and acts as part of the truss).

And such glass gable ends are easily inserted into old houses as well and by the same structural means—see below.

REMODELED HOUSE attic was converted into extra bedroom space which is lit and ventilated by new glass gable end. Lintel above windows helps brace existing roof truss. Acoustic tile and oak block flooring were used to refinish interiors.





BEFORE: Typical attic space, wastefully used to store belongings that nobody wants anyway.

Attic space can be awkward space, for only the center third of most attics has adequate headroom. In this case study, that center third was boxed in with a low ceiling and 7' high partitions. Peripheral space was then used for built-ins that required less headroom.



AFTER: Modernized attic makes fine study or guest room; 7' ceiling and dropped soffits over built-ins help disguise characteristic attic atmosphere.

These old-house attics became handsome new-house space

Photos (below): Ernest Braun



BEFORE: Old attic had only one small, double-hung end-window, threw away a dramatic view.

Many a postwar builder house was too small to start with, tried to compensate for its lack of space by including an expansion attic. This builder house in Belvedere, Calif., is a good case in point.

When the time came for the owners to take advantage of their expansion attic, they called in Architect Robert Marquis to lend them a hand. His solution: open up the gable end completely, add an overhang (supported on new outriggers) to protect the new glass areas.

Behind the new glass gable end, Architect Marquis found room for a spacious sleeping and study area, two large storage rooms and a bath. An existing dormer helped light the interior (see photo at left) and much of the low-headroom space along the sides of the attic was used for built-in cabinets and couches. Cost of remodeling: \$3,000, or a little over \$5 per sq. ft.

AFTER: Modernized attic opened the gable end to beautiful view of San Francisco Bay, made the upstairs the most popular space in the whole house.



MONEY!

The panel

From the Home Builders

THOMAS P. COOGAN, past president,
National Assn. of Home Builders

RICHARD G. HUGHES, past president,
National Assn. of Home Builders

PHILIP M. KLUTZNICK, chairman,
American Community Builders

NEAL HARDY, director,
National Housing Center

From the Mortgage Bankers Association

WILLIAM A. CLARKE, past president

From the Savings & Loan Societies

HENRY A. BUBB, past president,
U.S. Savings & Loan League

From the Life Insurance Companies

MILFORD A. VIESER, chairman,
Joint sub-committee on Housing &
Mortgage Lending Policy

From the Commercial Banks

GEORGE B. ROBERTS, vice president,
First National City Bank of N.Y.

For 12 years our industry has hounded from one mortgage crisis to another.

For 12 years we have listened to pious talk—pious talk urging us to have faith in the free market for money, pious talk bidding us be patient and wait for added savings to provide the money we need, pious talk suggesting we follow Mr. Misgawber's example and wait for some thing to turn up.

For 12 years we have listened to foolish talk—foolish talk saying we are already getting too much money, foolish talk calling our present rate of mortgage borrowing a menace to the whole U.S. economy, foolish talk saying we ought not to be asking proportionately more money for mortgages than we got in the Twenties.

For 12 years we have also listened to wild talk—wild talk demanding that the Federal Treasury play Santa Claus to solve all our money problems, wild talk demanding that the Federal Treasury pass through Fanny May all the 4½% mortgages the banks and insurance companies do not buy, wild talk demanding, in brief, the free and unlimited issue of 4½% mortgages at par.

For 12 years we have listened to pious talk, foolish talk, wild talk but in 12 years nobody—but nobody—has done anything about it. Right now our mortgage money mess is worse than ever with no relief in sight.

From the Investment Bankers

JOHN MEYER, senior vice president,
J. P. Morgan Co., Inc.

From the Savings Banks

R. STEWART RAUCH, JR., president,
Philadelphia Saving Fund Society

From Urban Renewal

JAMES W. ROUSE, chairman,
Greater Baltimore Committee
Sub-Committee on Urban Renewal

From Industry

WALTER HOADLEY, treasurer,
Armstrong Cork Company

Government Observers

GEORGE B. KNEASS
Asst. to the Under Secretary of the
Treasury for Monetary Affairs

WINFIELD W. RIEFLER
Asst. to the Chairman,
Federal Reserve Board

R. J. SAULNIER
Council of Economic Advisors

Economists

For House & Home

MILES L. COLEMAN

For the N A H B

NATHANIEL H. ROGGE

For the U.S. Savings & Loan League

ARTHUR WEIMER
Dean of the School of Business
University of Indiana

Moderator

P. I. PRENTICE, editor,
House & Home

Round table offers six recommendations to help home builders get more money

Because mortgage money is home building's No. 1 problem today, HOUSE & HOME invited 17 top leaders to a Round Table conference on the problems posed by our August editorial headlined "Let's Do Something About Money."

Four men were invited from the Home Builders, one each from the Life Insurance Companies, the Manufacturers, the Mortgage Bankers, the Savings and Loan Societies, the Commercial Banks, the Savings Banks, the Investment Banks, plus one man to speak for Urban Renewal. Three topflight housing economists were on hand, and the Treasury, the Federal Reserve, and the President's Council of Economic Advisers sent official observers.

Today's money shortage raises two big questions:

- 1 What can be done without inflation to increase the total investment pool from which home building and all other industries must borrow?
- 2 What can fairly be done to let home building compete on more equal terms for its share of the money available for investment?

Out of many proposals suggested, we have reached fairly close agreement on one basic recommendation to meet the over-all need for more money—and five specific recommendations to help home building get its full share.

At the close of the Round Table, a report of its conclusions and recommendations was prepared by HOUSE & HOME and submitted to the participants for approval. All but three returned the draft with suggested corrections, re-wordings, and additions. These changes were incorporated in the second and final draft, which was then submitted to the panel for last minute approval. *The report follows:*

ROUND TABLE REPORT:

All of us recognize that tightness in many parts of the mortgage market is now very serious.

Tight money is a major reason why builders all over the country are cutting back. Many are getting completely out of the market; the National Association of Home Builders has warned all its members not to build without firm written assurance of financing and many builders fear that housing starts in 1957 may drop to 850,000—or 35% below the 1955 level.

The same mortgage shortage that is cutting off money to build new homes is making it harder to finance urban renewal and the fixing up of existing houses, except with short term credit at high interest rates (9.6% or more).

All of us recognize the need of credit restraint; but we think everyone should realize that among all major industries

Home building has been hurt first and worst

by the tightness in the money market and the credit restraints of the past two years. In fact, the builders among us protest that there is still no effective credit restraint program for anyone else. As evidence they cite:

Since the present restraints began taking hold about January 1955, the gross national product in dollars has risen 8.2%; employment has risen 11%; expenditures for plant and equipment have increased 42.8%.

But home building starts have been cut back 31.4% from their seasonally adjusted peak in December 1954 to the new low hit this September. Nearly all this cut back in housing has come in that sector of the market that relies on FHA and VA financing; i.e., lower-cost house market. VA starts in September were 30% under 1955; FHA starts were 38%; but conventionally financed starts were down only 9%.

There are five main reasons why home building is taking more than its share of the impact of tight money:

- 1** The Government fixes the interest rate on nearly half the borrowing for homes, and the Government (usually backed by organized home builders and various consumer groups) has kept that interest rate so low it cannot meet today's competition in the money market.
- 2** Today's high taxes make it easy for corporate borrowers to outbid home building for money, for corporations can deduct not only 52% of their interest cost, but also 52% of their entire capital investment as it is depreciated.
- 3** Manufacturers expect the new plant and equipment they borrow to buy will cut costs and increase profits even if they must bid high for the money; but to home buyers higher interest usually spells nothing but less house for more money.
- 4** Home builders are mostly small business men, and in times of tight money and rising interest rates small business men are apt to have more trouble than well-established corporations in getting large long term loans.
- 5** A ½% interest boost hits home buyers ten times as hard as consumer credit buyers. It adds so little to the monthly consumer credit installment that few consumer credit borrowers care or even know what interest they are paying. To be precise, it increases the monthly payment on a 10% two-year \$1,000 consumer credit loan only from \$46.14 to \$46.37, or less than ½ of 1%; but it raises the monthly payment on a \$10,000 4½% 25-year mortgage from \$55.59 to \$58.46, or more than 5%.

Furthermore, the home building industry is under a special handicap in getting its production costs down as its operations are curtailed. In the face of today's 31.4% cutback its costs are still climbing fast, largely because the industrial and highway construction boom is bidding up the price of all home building labor and all home building materials except wood.

Our dynamic economy will need more and more capital investment and more and more credit expansion if we are to provide better and better living for our soaring population with less and less man hours of work.

These needs are too great to meet without major changes in the banking, fiscal and economic policies of the past generation. They are so complex and so difficult that our Round Table can only suggest their nature and their magnitude without offering any solution (see Sections II, III, and IV of our report). They are so urgent that we would make our

RECOMMENDATION NO. 1

A broad public commission study of all U. S. fiscal and monetary policies

There has been no such comprehensive study since the Commission of 1911 which laid the foundation for the Federal Reserve System. Since then our economy has changed almost beyond recognition. It is high time to re-study all our banking policies and systems and their relation to our tax policies, our business policies, our labor policies, our tariff policies, and our spending policies. Such a study would take many months, perhaps years. In the meantime we recommend five other steps that can be taken fairly fast to help home building get a better share of the money now available.

RECOMMENDATION NO. 2

Raise the ceiling on FHA-VA interest

Already the effective rate on FHA-VA loans is close to 5% in most parts of the country and higher than 5% in many places, for a 4% discount is roughly equivalent to $\frac{1}{2}\%$ higher interest. Discounts may be a good way to meet temporary tightness in the money market or to equalize regional markets, but they are a wrong and ineffective way to meet a continuing rise in interest rates. They fail to produce the needed money for the borrower, and they impose an intolerable hardship on the builder. It is completely unfair and unreasonable for FHA and VA to expect the builder to take \$600 to \$800 out of his profit to pay for $4\frac{1}{2}\%$ money.

We can offer no assurance that a 5% rate would make VA and FHA money freely available. On the contrary, we recognize that as home building raises its bid for money other industries might well bid higher too.

But this much we can state positively: Unless and until the FHA-VA interest rate is raised less and less money will be available for FHA-VA loans. With a VA guarantee or FHA insurance many lenders will make 90% to 95% loans for $\frac{1}{2}\%$ lower interest than they will make 67% to 80% conventional mortgages, but there is little use counting on them to accept a wider spread.

The mechanics of the FHA-VA increase call for careful study. Most lenders seem to favor a completely free FHA-VA interest rate, relying on competition and the state usury laws to hold down the cost of money under a ceiling quite a bit higher than the 5% rate about whose success all of us have doubts.

But some of us wonder if the big lenders have considered the public relations danger that some future Congressional investigator

might try to make political hay out of a few unhappy instances of "free bargaining" over interest rates on government-backed loans between a veteran or a low income family and a billion dollar corporation. Still others among us are concerned over the position of several hundred millions of mortgages trapped waiting for a firm takeout when the rate goes up.

All of us agree the faster the change is made after Congress reconvenes, the better.

RECOMMENDATION NO. 3

Lower the FHA insurance premium on Section 203 mortgages

This would help compensate for higher interest.

The present FHA premium on mortgages carried to maturity works out to nearly

twice the premium private underwriters charge for comparable insurance in England. It is twice as high as the premium Canada inaugurated in 1955 after careful study of mortgage experience in other countries.

The research just completed by Professor Ernest M. Fisher of Columbia, with the help of funds put up by the Life Insurance Association of America, the Mutual Savings Banks Association, the Mortgage Bankers Association, and the U. S. Savings and Loan League, suggests that:

- A** FHA reserves are already more than adequate to meet a mortgage collapse as catastrophic as 1932.
- B** FHA should be able to get by with smaller reserves, because FHA can pay off any defaulted mortgage in debentures. This option was written into the law so FHA would not have to sell foreclosed houses at panic prices below mortgage value.
- C** A single 2% premium paid in advance would probably net FHA more income than today's ½% a year premium collected month after month on a declining balance, with each premium a little smaller. It would also save FHA a lot of penny bookkeeping.

Without time for a full study of the report or the problem, we are inclined to suggest that FHA should substitute a single 2% premium for its present ½% annual premium and that the cost of this insurance should be added (as in England) to the cost of the house and the face value of the mortgage; i.e., it should not be added to the down payment.

We believe home owners would rather pay a smaller FHA insurance premium now than get a refund in the remote future if their premium payments prove needlessly high. Mutual insurance was a fine idea to get FHA started, but borrowers show so little interest in this feature that we recommend dropping it from those FHA programs on which it has not already been stopped.

RECOMMENDATION NO. 4

Develop a new instrument to broaden the market for mortgages

Thirty years ago the guaranteed mortgage certificate, available in denominations from \$100 to \$500,000 was one of the most popular and widely held investments, attractive to individuals and institutional investors alike.

Because these certificates were scandalously abused during the 20's and sadly discredited by the mortgage collapse of 1932, we have gone to the opposite extreme. The ownership of FHA mortgages is restricted by law to "qualified investors" with over \$100,000 capital, and in practice the ownership of both FHA and VA loans is even more closely limited by the bother and bookkeeping required by interest and principal payments which change from month to month as they are amortized. The net result is to narrow the market to little more than 2000, important buyers, mostly life insurance companies and savings banks, plus a not-too-high percentage of commercial banks and savings and loan associations. Hardly any FHA or VA loans are sold to pension trusts, now the fastest-growing pool of savings.


To help mortgages compete for money in a broader market there is now urgent need for an improved counterpart of yesterday's easy-to-handle guaranteed mortgage certificate—a new certificate, debenture, or participation that would convert VA and FHA mortgages into corporate interest bearing certificates.

Such an instrument was contemplated when the Home Loan Bank system was started in 1932; and it is exactly what Congress intended when it wrote into the original FHA legislation a charter for privately owned mortgage associations to buy mortgages and sell debentures against them. This provision was repealed ten years ago, because no one worried about a better instrument or a better credit facility as long as money was easy; but now that money is tight its importance and need are again obvious and urgent.

The problem is how to create and market these obligations so economically that they will still carry an attractive yield.

The savings and loan associations have now decided they want the Home Loan Bank system to make much freer use of long term debentures to bring more money into the mortgage market, but they do not want the Home Loan Bank system used to convert FHA and VA mortgages into certificates.

None of us believes the Federal government should subsidize such a conversion in any way; but few of us see any objection to using a Federally sponsored corporation like F.N.M.A., (now the only functioning mortgage association) as a central mortgage facility to handle it on a self-sustaining basis,



provided this same corporation is not used as an instrument to sustain fictitious interest rate or as a dumping place for mortgages the market will not accept.

Some of us feel very strongly that nothing less than a central mortgage bank can do

the job on a big enough scale.

Working out a new and better mortgage instrument and a new and better credit facility should be a great challenge to the inventiveness of the mortgage banking fraternity and the home building industry.

RECOMMENDATION NO. 5

Modernize the state mortgage laws

In Texas you can foreclose a mortgage in less than 30 days for an average of \$20.

But in Michigan it takes 15 months, costs roughly \$90. In Illinois it takes 19 months, costs \$350. In Montana it costs \$500.

In Mississippi it takes one month. Right next door in Alabama it takes 25 months. In Maine it costs \$35; next door in Massachusetts it costs \$200.

Most states still have foreclosure laws that just make it hard to borrow. In only six states and the District of Columbia can a mortgagee get a clear title on foreclosure in less than five months for \$100 or less.

In theory the purpose of slow and costly foreclosure laws is to protect the borrower, but in practice they serve mostly to pile up legal fees, exclude out-of-state lenders, and so add to the cost and difficulty of borrowing. The slowest foreclosure laws were written to protect farmers against losing their land on the failure of a single crop, but why should foreclosure take just as long for city homes?

As long as money was easy and lenders were beating the bushes for places to invest, no one worried much about these laws. But now it is high time builders in states where foreclosure is slow and costly made common cause with the mortgage bankers to get foreclosure laws for non-farm property that will not drive mortgage lenders away.

RECOMMENDATION NO. 6

At least recognize the big advantages and incentives high taxes offer corporate borrowers

When a corporation borrows money for plant and equipment it can deduct 52% of its interest payments from its Federal tax bill and a smaller additional percentage from its state tax bill, if any. As the investment is depreciated, the corporation gets a still bigger advantage, for it can deduct 52% of the whole cost from its Federal tax bill and often another slice from its state tax.

A home is the biggest investment the average family makes, but it is almost the only investment on which no tax credit is allowed for depreciation. Such a credit is allowed on rental housing, but not on owned homes. As for any interest credit, most home owners get no added deduction at all because most of them use the short income tax return and take the same flat 10% deduction regardless of what interest they pay. If they do take a separate interest deduction, it is seldom more than half the corporate borrower's 52-58% saving.

We would be the last to question the tax deductions a corporation can take on its plant investment. They are the almost inevitable corollary of the heavy taxes corporations have to pay. But these deductions do make it much easier for corporations to outbid home buyers for money in today's tight market.

All of us believe that when we cannot find savings and credit enough to finance all the investments we want to make, the one best way to ration money is through the free action of a free money market. But how can the free money market give home buyers their fair share as long as corporate competitors for money can, in effect, charge more than half their interest payments and more than half their entire investment to the Federal and state governments?

Perhaps the best quick answer to this problem would revive the voluntary credit control program that worked so well during the Korean War to discourage unnecessary or marginal demands for money.

Credit restraint hits home building, but it cannot prevent inflation unaided

All of us want a stable dollar. All of us are in sympathy with the courageous effort the Treasury and the Federal Reserve are making to halt price inflation, though many of us are critical of the way home building has been whipsawed with tight money in 1953, too much cheap money in 1954, and now tighter money than ever in 1956. All of us recognize credit control as one *indispensable* element in any attempt to keep prices from getting out of hand.

All of us realize that a stable dollar is doubly important to any industry like home building that needs enormous quantities of savings to finance its production. All of us realize that people will stop saving if they lose confidence that the dollar they save today will buy as much tomorrow. All of us know how home building has been paralyzed in countries like France, where mortgage money disappeared as continuing inflation destroyed confidence in any and all fixed-income investments.

But

- 1 All of us recognize that some industries are much more sensitive to tight money and credit restraint than others; and we have seen how home building has been hurt first and worst by the credit restraints the Federal Reserve began applying late in 1954.
- 2 All of us recognize that credit restraint alone cannot assure a stable dollar. Its impact is almost always delayed, and it cannot cope with negotiated cost increases like the steel wage settlement—a settlement whose consequences may well prove more inflationary than adding several billion dollars to the credit supply.

We must face the unpleasant fact that in 24 months since the Federal Reserve began its policy of restraint the wholesale price of industrial products has risen an alarming 6.1%. And in those same months, while home building volume has been cut back 21.6%, home building costs (not counting land, whose price has climbed faster still) have risen 7.2%! (Without credit restraint, of course, prices would have risen still more.)

Maintaining a stable dollar is too big a job for the Federal Reserve to achieve single-handed. If 66 million producers—business men, farmers and labor alike—keep pressing for higher prices, each for his own service or product, the Federal Reserve alone cannot hold the line against them. No defense of the dollar can succeed without far

better popular understanding and far broader popular support, far better business support, and far better labor support than the Federal Reserve is getting today. And no defense of the dollar can succeed until many other government policies, actions, and utterances are brought in line with a broad program of dollar stabilization.

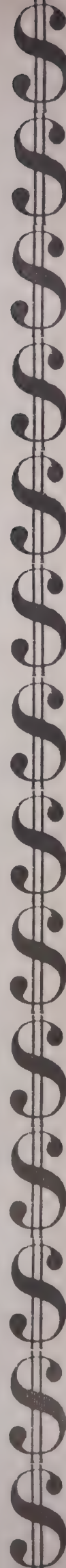
It makes no sense for the government to press an anti-inflationary policy with its left hand through the Federal Reserve while it is still pursuing many anti-deflationary policies with its right hand through its other agencies.

Except for our almost-new credit restraints, most of our national economic policies were adopted to meet economic needs and problems very different from (and often exactly the opposite of) our economic needs and problems today. Many of them date from years when we had more savings and more labor than we knew what to do with—years when we could find no jobs for millions of unemployed workers and no investment openings for billions of unemployed dollars. Now, on the contrary, our problem is how to stretch our available labor to do all the jobs we want done and how to stretch our available dollars to finance all the new homes and facilities we need.

Such a sea change in our economy calls for a searching re-examination of all our economic policies and attitudes. It calls for radical changes. Specifically:

- 1 **We must review our tax structure.** Too many of our present tax policies were born of the very different needs of the depression years, when the New Deal was trying to force consumption and discourage savings.
- 2 **We must re-think our labor attitudes.** With the labor shortage becoming more and more critical America can no longer afford the labor restrictions and the spread-the-work thinking that were all very well when we had 10 million unemployed.
- 3 **We must re-study our tariff policies.** When American labor and American industry can no longer supply all the materials we need to meet the staggering new demands on our productive capacity, we should lower the barriers raised to keep out the products of foreign labor. We should let other countries pay with goods for the dollars we are taxing

continued on p. 194





Model of 80-acre Homestyle Center site shows the first 17 of an eventual 50 houses

Homestyle Center:

New forms, new plans, new details

The six designs you see on the next three pages embody some of today's most advanced ideas for tomorrow's house.

All of them show something new in design, construction, and use of materials—several are totally experimental. They will form part of a permanent exhibit of 50 full-scale houses to be known as the Homestyle Center, at Grand Rapids, Michigan.

The center, intended to be the world's most inclusive home show, will eventually display custom, builder, prefabricated, and component models. There will be houses designed for different parts of the country and for a wide range of income and living requirements.

Ground was broken in September for the first group of houses. So far, 17 house teams—architect, interior designer, landscape architect and builder—have been selected by the center's advisory committee. After all 50 houses have been completed, several will be removed each year and replaced by new designs, to keep the center up-to-date with changes in home living standards.

The center expects to open to the public in the spring of 1957, when 25 of the houses should be completed. The remaining 25 houses will be built at the rate of about eight a year until all 50 have been completed.

Of the first 25 houses, 10 will be in the price range of \$8,000-\$17,000, 10 between \$17,000-\$50,000, and five will cost from \$50,000 to \$200,000. All will be furnished and will include equipment, materials, and appliances.



Sliding louvers shade a patio

This house has a patio that can be shaded or left open to the sun because sliding louvers run on tracks across it.

The center patio provides a solution to the problem of building on a narrow city lot. The house gets not only a private outdoor space, but a very efficient, compact plan. The kitchen separates family and living room, and all three open on the court.

Architect: Ralph Rapson.

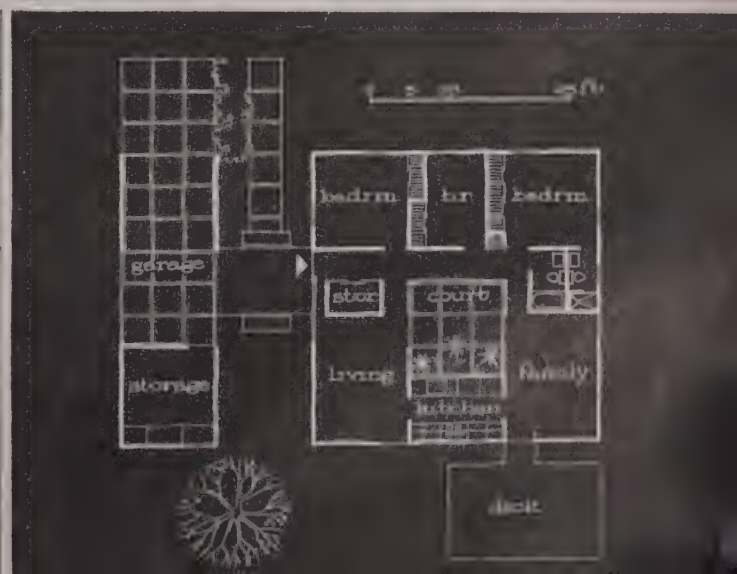
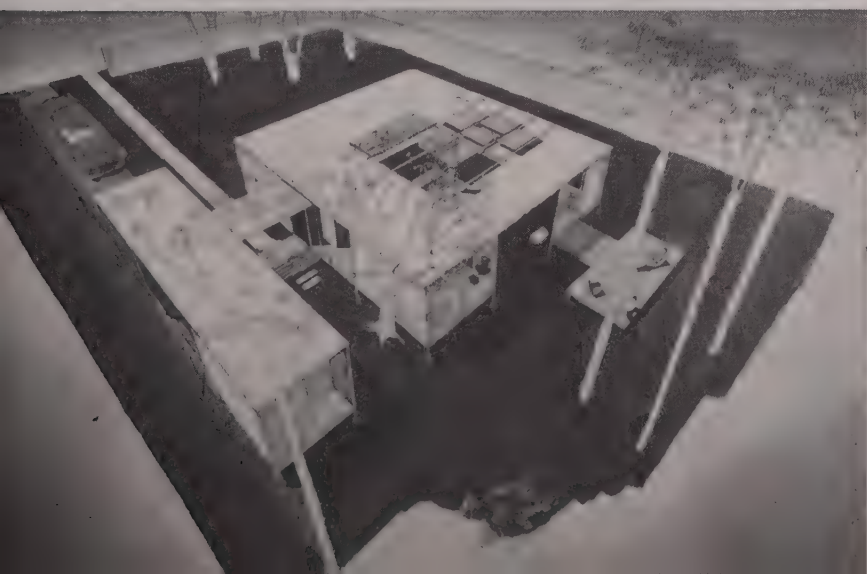
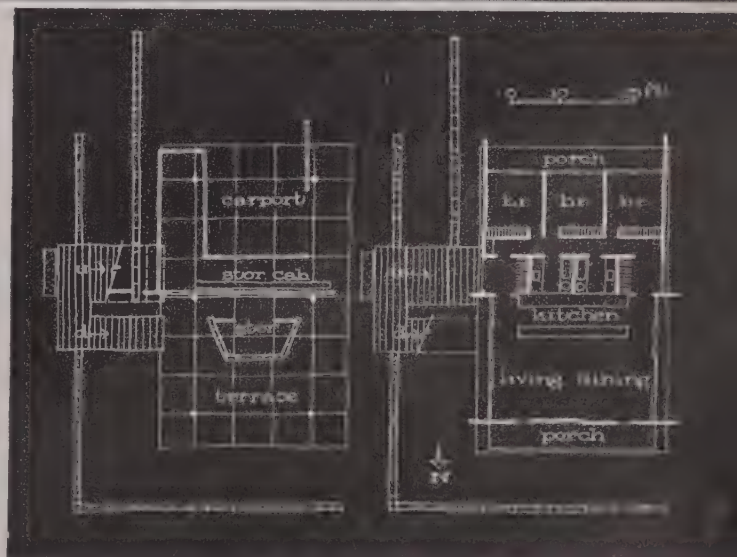
Lift-slabs go residential

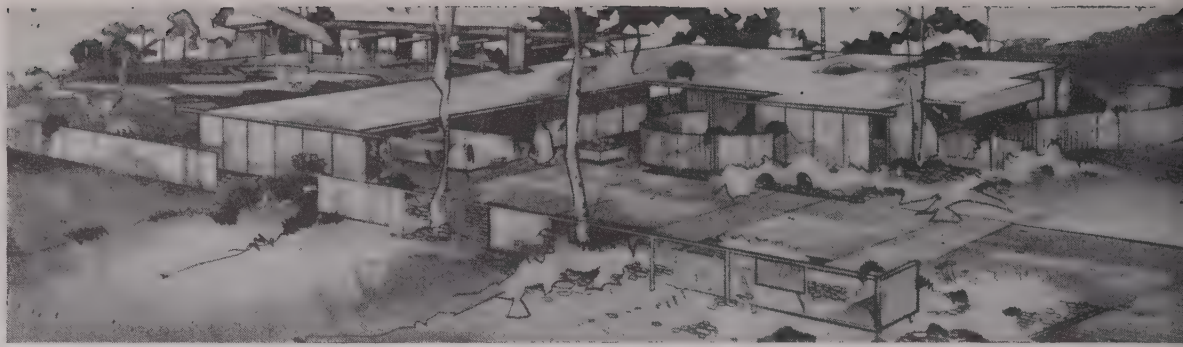
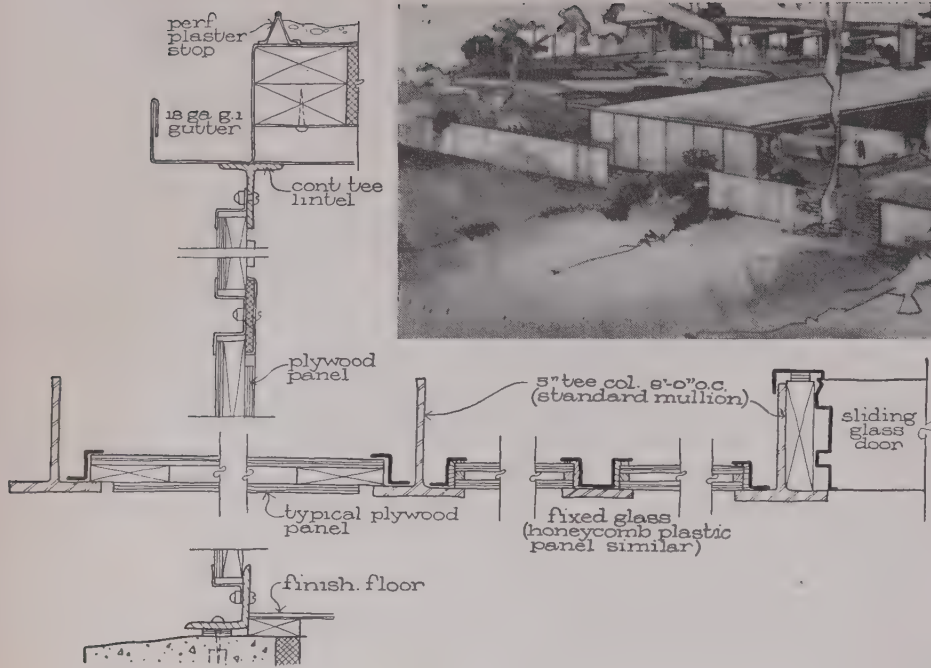
New materials and new (for houses) construction make this house newsworthy.

Up to now lift-slabs have been used only in commercial buildings; now this Midwest house provides a chance to see how to apply the technique to home buildings.

Materials include plexiglass and aluminum on metal frame partitions. Native wood and stone are used to soften the living areas.

Architect: Robert A. Little.



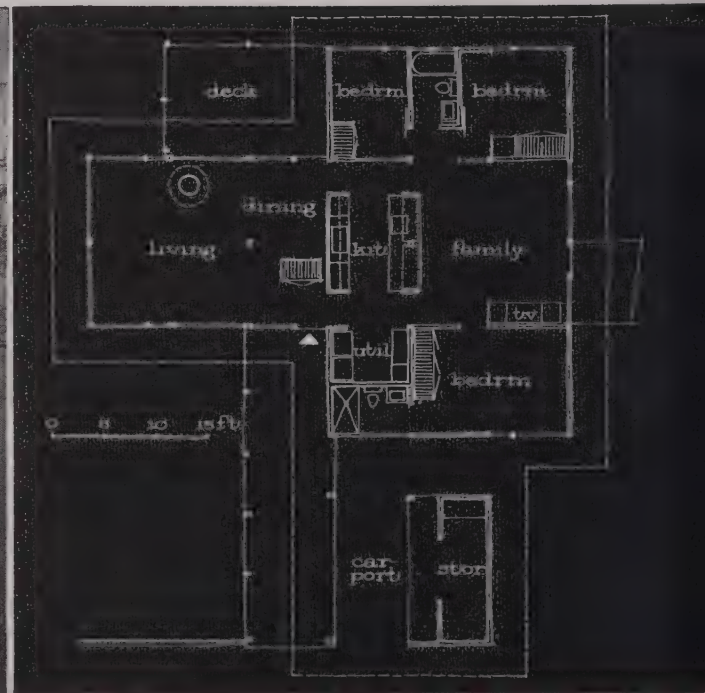
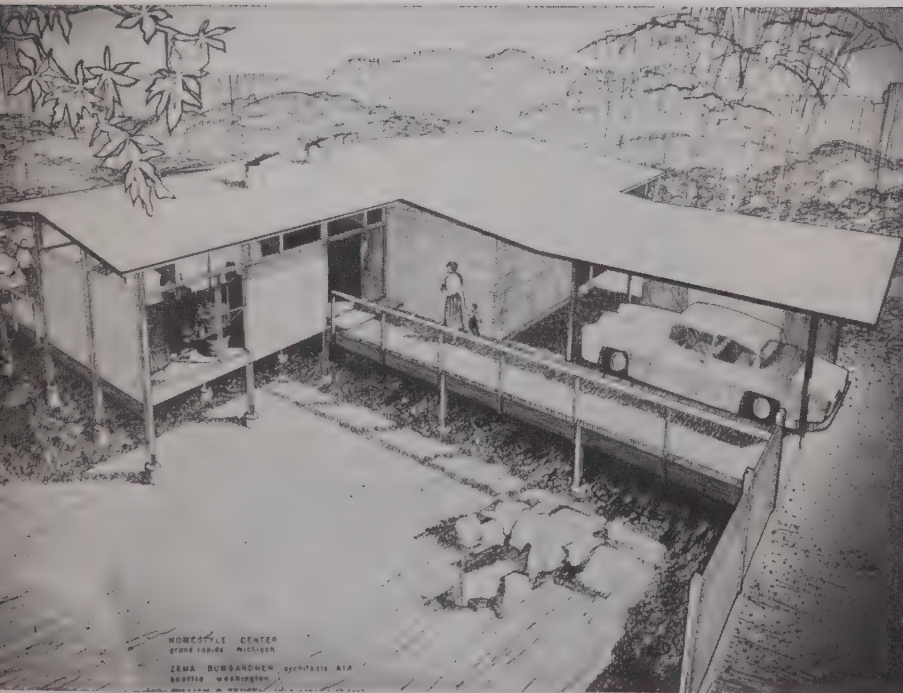


Steel frames house in 8' bays

Long-span steel roof beams frame the house on an 8' module to eliminate interior bearing walls. Then the roof load is taken by steel mullions, so the outside walls are in turn non-load-bearing.

The exterior wall material is varied by the use of thin plywood or plastic panels, double thicknesses of fixed glass, or sliding glass doors (see details). Architects: Jones & Emmons.

These four houses use modular framing



This house uses a module for economy, and wood to fit its region

The 8' module carries through the framing of both roof and floor, and the spacing of the posts and beams determines the size of the glass areas.

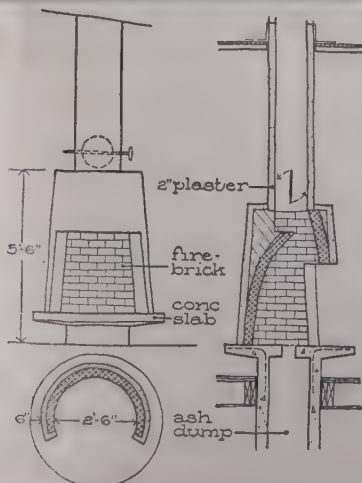
Architects Zema & Bumgardner felt that use of a module makes working drawings easier to follow, and would speed assembly of component parts and materials.

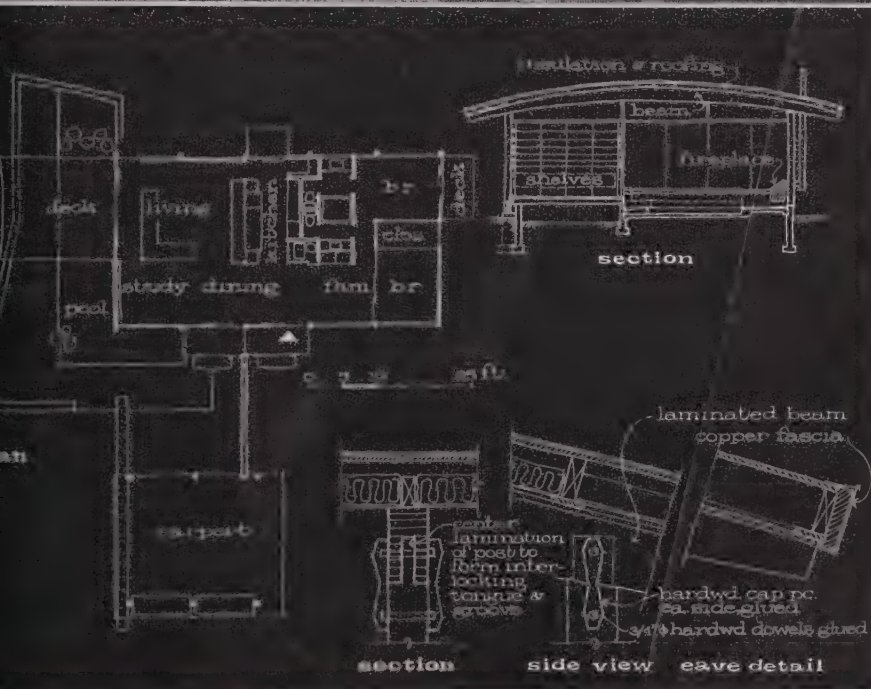
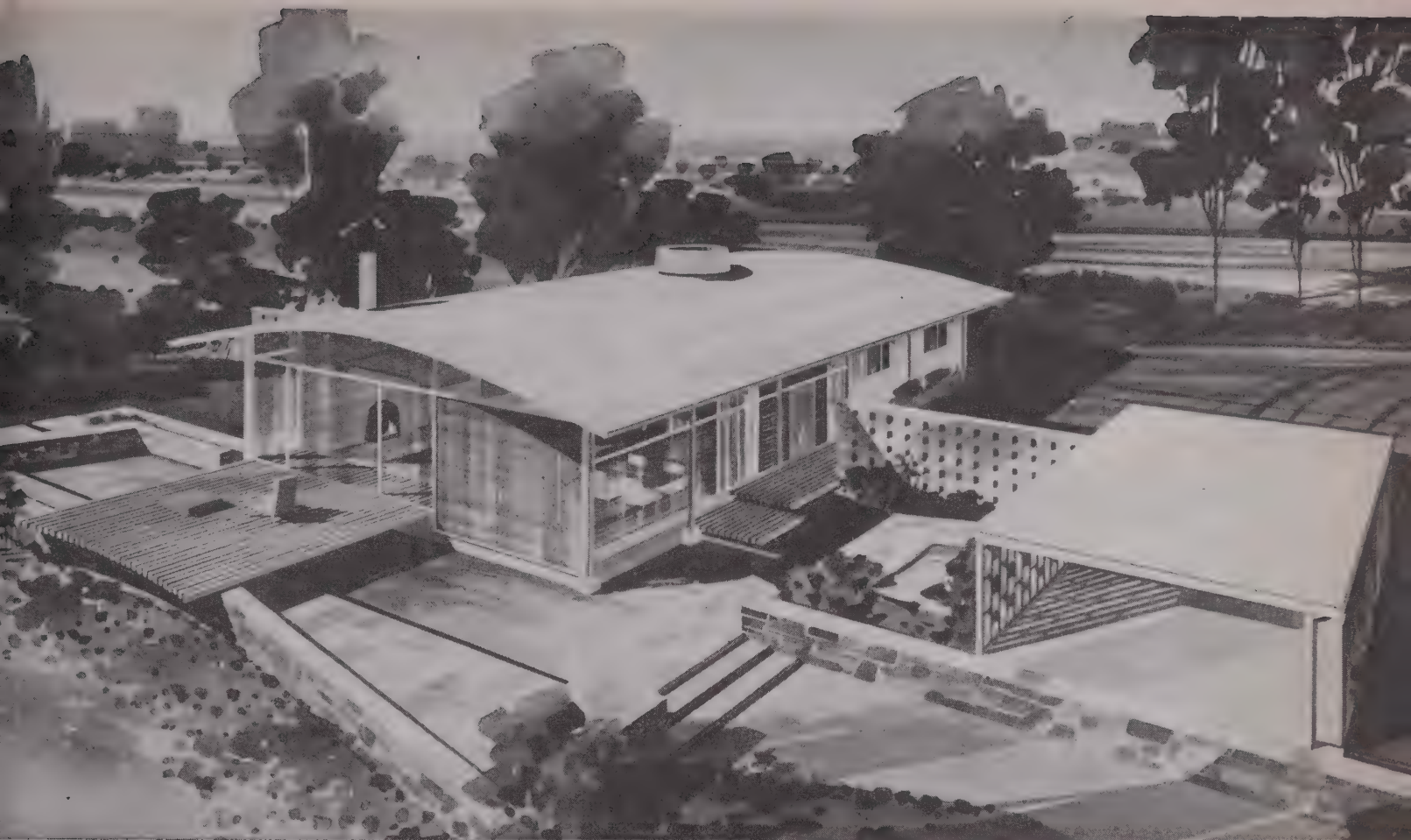
Extra economy is possible in this house because of the very

good and efficient plan. The skylighted central kitchen controls both living and family rooms. Bedrooms are separated by the family room for extra privacy, and corridor space is held to a minimum.

Exterior and interior finishes of stained and natural wood add to the regional character of the house which is intended for the Pacific Northwest.

Arch: Zema & Bumgardner.





Laminated beams arch this roof

Glue-laminated beams were used in this house for southern California to give form and good drainage to the roof.

Because of their high structural strength, the beams will frame the 27' width of this house in 10' bays. Here again the interior bearing walls will be omitted to gain flexibility in plan.

The successful use of outdoor areas makes this house seem much larger than its 1,250 sq. ft.

Architect: Kazumi Adachi.

Components frame the Geodesic house

Standard (8'-9') lengths of magnesium or aluminum tubing will frame the 110' diameter of the Geodesic house. The plastic "tent" that serves as the house's "skin" is then suspended from the tubing.

This house is air conditioned. Light can be controlled by a translucent panel that moves around the house inside the plastic "tent."

Architect: Buckminster Fuller.

Other architects selected for Home-style Center houses: John E. Dinwiddie, Alden Dow, Harwell H. Harris, George Nelson, Eliot Noyes, Painter, Weeks & McCarty, Paul Rudolph, Univ. of Illinois, Royal Barry Wills, Clifford B. Wright, Wurster, Bernardi & Emmons.

Ralph Mills





Toledo. Monthly heating and cooling costs were cut 22% to less than \$9 a month on this 1,273 sq. ft. house by Scholz Construction Corp.



Chicago. By spending \$98 more on this 1,315 sq. ft. house, Shiffler & Sons cut heating-cooling \$47 a year in an area of high utility rates.



Kansas City. This 1,056 sq. ft. house can be heated and cooled for less than \$10 a month. Extra cost to Builder H. E. Gensch was \$68.



Wichita. Gentry & Sons spent only \$36 extra to pare the yearly heating-cooling costs of this 1,524 sq. ft. house by about one-third to \$117.

In 40 test houses like these

To cut heating-cooling bills to \$10 a month,

"Any 1,000 sq. ft. house can be so insulated and so constructed that the cost of heating and cooling should not be more than \$10 a month."

Robert K. Thulman, Engineering Consultant and former HHFA official, at H&H's Heating Round Table (Jan. '55).

When this claim was first made, many experts were skeptical. Among those who were not was Tyler S. Rogers, technical consultant of Owens-Corning Fiberglas. Not only did he agree but he got busy doing something about it.

Result: Owens-Corning set up a special national research program to put the theory to test in typical new builder houses throughout the US. The test is already well under way.

First figures, now available for 40 houses, show heating-cooling costs very close to the \$10-a-month target. But the most startling finding to come out of the test is this: The average new house needs only an average of about \$15 of changes to reach the goal!

This means that participating builders who followed Owens-Corning's advice on how to re-design their houses for maximum heating and cooling efficiency spent an average of only \$15 extra. In many cases the changes resulted in substantial

savings in construction cost. In others, the cost of the house was increased. (See page 163 for details on each house.)

Although the average test house heating-cooling bill will come to \$11.33, Thulman's goal was in effect reached. His \$10-a-month figure was based on a typical 1,000 sq. ft. house. Average size of all houses being built in the US has since increased to about 1,200 sq. ft. Owens-Corning lifted the target figure to apply to today's larger houses. Its current figures are based on 40 houses averaging 1,249 sq. ft. Annual heating and cooling bills for these houses will drop from \$184 to \$136. (Separate research, sponsored by Alcoa, indicates that the average 1,200 sq. ft. house can be heated and cooled for \$144 a year. See box on opposite page.)

Heating-cooling bills cut an average of 26%

Heating and cooling costs were reduced by an average of 26%, as much as 50% in some houses. This compares with what costs would have been if the houses had been built solely to meet FHA's minimum property requirements.

Builders in the South appeared to gain most from the prescribed changes. They actually saved construction money. In other areas, chiefly in the North, net cost to the builders for the changes was about \$50 on the average.



Minneapolis. Builder O. M. Spande saved \$25 on this 1,312 sq. ft. house when he cut heating-cooling bills from \$214 to \$171 a year.



Phoenix. Bixby Construction Co. saved \$148 on this 1,363 sq. ft. house by making changes that cut the heating-cooling bills to \$143 a year.

More on heating-cooling costs:

The case for insulation as a means of lowering heating and cooling costs is given a major assist this month by the Aluminum Co. of America.

Based on new research, Alcoa claims the average 1,200 sq. ft. house with proper insulation can be heated and cooled for \$12 a month. "The \$12 figure is an average for the entire US. In some areas it may be \$14, in others as low as \$10." The company sponsored two new research projects, one at the National Bureau of Standards, the other at Pennsylvania State University.

The National Bureau of Standards research established new U factors (heat transmission standards) for aluminum foil insulation. Penn State's project shows that the efficiency (especially in summer) of regular batt or blanket insulation is greatly increased when it is wrapped in aluminum foil. Based on the findings of these two research projects, Alcoa claims that almost any kind of aluminum "clad" insulation, properly used, will greatly enhance the thermal efficiency of houses.

Data from the two research projects were used by Alcoa to develop a new method "to calculate quickly and easily heating and cooling costs for practically any house in any region of the country." This method involves simplified heating and cooling charts. They are used together with a new table of heat transmission values for aluminum types of insulation (based on the two research projects). Given data like the size of a house and local fuel and power rates, you can quickly find from the charts the equipment size needed and what the annual heating and cooling bills should be.

Charts and table are included in a new 47-page booklet called "Comfort Everybody Can Afford" (available from Alcoa, Alcoa Bldg., Pittsburgh 19, Pa.). The booklet also contains data on orientation, attic ventilation, moisture control and the selection and installation of insulation.

cost the builder an average of \$15 extra

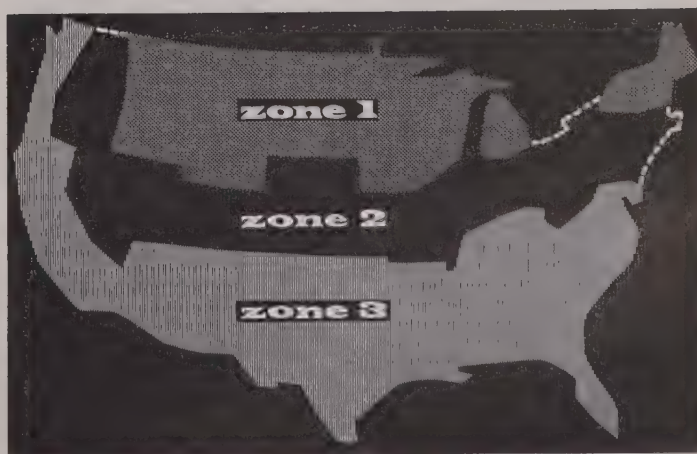
These first figures based on 40 houses will be supplemented by data from many more. In all, 150 houses in close to 50 cities will be tested. They range all the way from a 906 sq. ft. slab-on-ground model in Memphis to a 2,710 sq. ft. ranch type in Toledo.

All were regular models

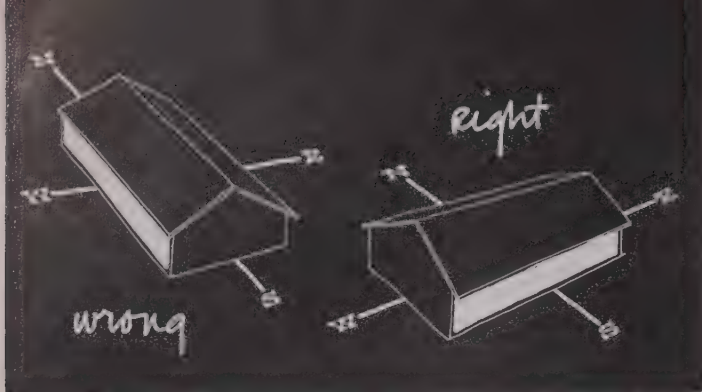
Builders throughout the country were invited to participate in the test program. Several hundred sent in plans of their regular production houses. Fiberglas engineers found that most were designed just to meet FHA's minimum rules on heating, and their design for cooling varied greatly (since no MPR's are yet established for cooling).

The engineers suggested such changes as extra insulation, shading devices, attic vents, etc. In no case was the builder's basic plan changed. Naturally, it cost the builders money to add insulation. But it paid off, since the changes permitted use of smaller heating and cooling units in most of the houses.

The test houses are being put on the market for sale like any other builder houses. The only special requirement is that buyers must permit their year-round heating and cooling bills to be metered, studied and publicized over the two-year duration of the test.



Climate map shows how heating and cooling costs vary for the three major climate zones in the US (North with more than 6,000 heating degree days, Central with 6,000 down to 3,000, South with less than 3,000). Owens-Corning figures from 40 test houses show these estimated operating costs: Zone 1, \$127 a year—\$99 for heating, \$28 for cooling; Zone 2, \$126 a year—\$76 for heating, \$50 for cooling; Zone 3, \$139 a year—\$30 for heating, \$109 for cooling. These are for a 1,200 sq. ft. "base" house with average US fuel and power rates of 10¢ per therm and 2¢ per kilowatt hour, respectively.



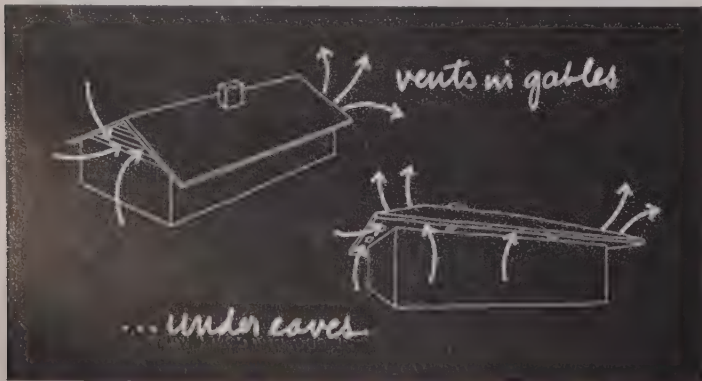
1. Better orientation. Lots of glass on the hot east and west sides of the house is a major reason for high cost summer air conditioning. When possible, the Owens-Corning engineers solved this problem by having the builder shift his house so the large windows would face north or south. A last minute change like this is not always possible, so poor orientation proved to be the most frequent reason for rejecting houses submitted for the test program.



2. More insulation. All but one of the 40 houses being tested required more insulation than builders had planned to install. Minimum insulation under the test program is: 3" batts or blankets for walls, 6" of wool blown over the ceiling of houses in the North and 3" of foil-enclosed ceiling insulation in the South. These specifications are well above FHA's minimum property requirements.



3. Extra shading devices. Even when a house has good orientation there are almost always some windows that catch a lot of sun heat. In such cases some kind of extra shading is essential. Twenty-five of the 40 test program houses needed the addition of shade screens.



4. Attic vents. Much of the summer heat that builds up in the attic can be removed before it penetrates down into the living quarters. For this reason the Owens-Corning engineers required attic vents in every test house. They found most builders normally install vents, generally at the gable ends of their houses, so vents had to be added in only four of the first 40 houses.

Here's how the builders cut heating and cooling bills as much as 50% per house

When Owens-Corning engineers checked the thermal efficiency of the builder houses submitted for the test program, they found that lower operating costs depended most on four key changes.

These changes were: better orientation to the sun, more insulation, added shading, and attic ventilation. One or more of these changes was necessary in each house studied.

The houses selected for the test include a wide variety: some had basements, some slab floors, some crawl spaces. Every type of construction was represented, including brick, stone, frame and masonry.

Greatest savings made in South

The tabulation (opposite page) shows the specific changes made in each house, how much they cost the builders and the heating-cooling savings that resulted. This table shows that the greatest construction savings were made by builders in the South. By properly designing for low-cost year-round air conditioning, the Southern builders saved an average of \$48 per house, including a Memphis builder who saved as much as \$186. This was possible because of the addition of heavy-weight insulation, shading devices, etc., which permitted the use of smaller coolers in all of the houses, smaller heaters in all but three. Significantly, the smaller equipment will do a more efficient job of heating and cooling.

Average Northern builder spent \$50 extra

Construction savings were not so widespread in the North. The average Northern builder made a net outlay of \$50 per house to achieve lower heating and cooling bills. (All of this extra cost is recognized in FHA appraisals.) In every one of the Northern houses, save one, the extra first cost is offset by operating savings within five years or less. The one exception is a 1,140 sq. ft. Pittsburgh house.

Here's how to figure the HEF

A major factor in the analysis of the houses was the calculation of the Heating Economy Factor before and after the redesign changes. Heating Economy Factors (second and third columns in the table) were computed from this formula:

$$\text{HEF} = \frac{A_t (t - t_o)}{Q}$$

A_t equals the total "shell" area of the house; t equals desired interior temperature; t_o equals outside winter design temperature; Q equals total heat loss in Btu's per hr. HEF ranges from one to 10. The higher the HEF, the lower the winter fuel bill.

Cost box score: How heating and cooling costs vary from North to South

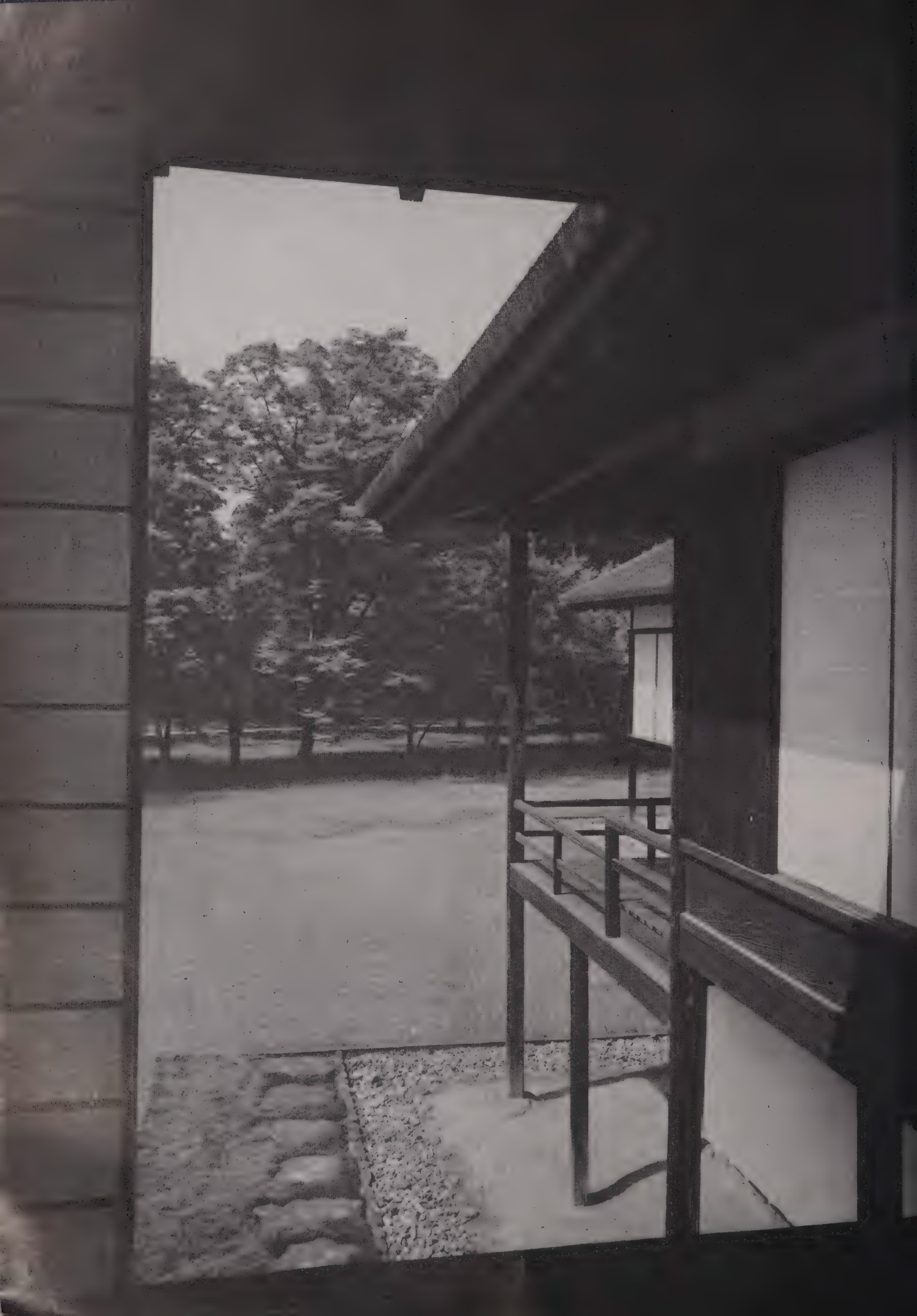
NORTH		OPERATING COSTS								CHANGES							
		Htg. economy factor (HEF)		Htg. per yr.		Cooling per yr.		Total htg. & cooling per yr.		Oper. cost svgs. per yr.	Additional insulation	Shade screens added	Attic vents	Smaller		Bldr. spent	Bldr. saved
		Before	After	Before	After	Before	After	Before	After					Htr.	Cooler		
TOLEDO No. 1	1273	4.5	5.4	\$105	\$ 85	\$ 33	\$ 21	\$138	\$106	\$ 32	X		X			\$153	\$ 42 32 25
TOLEDO No. 2	1078	4.7	7.3	115	55	39	21	154	76	78	X			X	X		
TOLEDO No. 3	1104	5.8	6.4	89	79	52	38	141	117	24	X	X		X	X		
MINNEA. No. 1	1312	5.6	7.0	185	150	29	21	214	171	43	X		X	X	X		127 215
MINNEA. No. 2	1131	6.3	7.9	161	137	28	20	189	158	31	X	X		X			
MINNEA. No. 3	1353	6.9	8.4	217	180	30	22	247	202	45	X			X	X		
CHICAGO No. 1	1188	6.4	7.7	169	140	49	39	218	180	39	X				X	X	98
CHICAGO No. 2	1315	5.8	7.1	189	153	49	39	238	192	47	X			X			
CHICAGO No. 3	1562	4.0	5.3	195	146	80	56	275	203	72	X	X		X	X		
CHICAGO No. 4	1444	5.4	5.8	178	169	88	64	266	233	33	X	X			X		49 205
DETROIT	986	6.4	7.0	121	109	121	109	173	138	35	X	X			X		
OMAHA	1039	7.0	8.4	108	91	57	44	166	135	31	X	X		X	X		
SPOKANE No. 1	1378	6.5	8.0	147	119	15	10	162	129	33	X			X	X		54
SPOKANE No. 2	1189	7.1	9.6	121	89	16	12	137	102	35	X			X	X	54	
AVERAGE 14 Houses		1239	5.9	7.2	\$150	\$122	\$49	\$37	\$194	\$153	\$41						\$ 46

		OPERATING COSTS								CHANGES								
CENTRAL	Hse. size sq. ft.	Htg. economy factor (HEF)		Htg. per yr.		Cooling per yr.		Total htg. & cooling per yr.		Oper. cost svgs. per yr.	Addi- tional insu- lation	Shade screens added	Attic vents	Smaller		Bldr. spent	Bldr. saved	
		Before	After	Before	After	Before	After	Before	After					Htr.	Cooler			
MEMPHIS No. 1	1460	4.4	6.8	\$ 84	\$ 54	\$ 52	\$ 30	\$137	\$ 85	\$ 53	X	X		X	X	\$102	\$ 34	
MEMPHIS No. 2	1333	5.7	6.7	62	54	32	16	95	70	24	X	X			X			
MEMPHIS No. 3	906	7.7	10.0	53	52	52	32	105	71	34	X	X				186		
MEMPHIS No. 4	1045	4.8	6.4	84	63	55	40	139	102	37	X	X		X		88	77	
PITTSBURGH No. 1 ..	1094	5.2	5.7	122	113	45	37	168	150	18	X	X			X			
PITTSBURGH No. 2 ..	1140	6.0	7.0	89	80	16	14	104	94	11	X			X	X	126		
PITTSBURGH No. 3 ..	1370	6.0	6.0	149	149	50	50	199	199	—	NO CHANGES						—	—
PITTSBURGH No. 4 ..	1152	5.2	6.4	118	97	20	17	139	114	25	X					143		
WICHITA	1524	4.2	5.8	76	55	98	62	173	117	56	X	X			X	36		
KANSAS CITY	1056	6.3	7.9	62	49	79	59	142	113	29	X			X		68	3 1	
DENVER	1078	4.9	6.8	74	54	67	41	140	95	45	X	X		X	X			
DAYTON	1134	4.3	6.6	92	65	73	60	165	125	39	X	X		X				
AVERAGE 12 Houses		1191	5.4	6.8	\$89	\$73	\$53	\$38	\$142	\$111	\$31					\$ 53		

		OPERATING COSTS								CHANGES							
SOUTH	Hse. size sq. ft.	Htg. economy factor (HEF)		Htg. per yr.		Cooling per yr.		Total htg. & cooling per yr.		Oper. cost svgs. per yr	Addi- tional insu- lation	Shade screens added	Attic vents	Smaller		Bldr. spent	Bldr. saved
		Before	After	Before	After	Before	After	Before	After					Htr.	Cooler		
DALLAS No. 1	1092	5.5	5.8	\$ 39	\$ 38	\$144	\$ 89	\$183	\$127	\$ 57	X	X		X	X	\$ 1	\$ 61
DALLAS No. 2	1186	3.8	4.9	52	41	190	117	242	157	85	X	X		X	X		
DALLAS No. 3	1270	4.0	6.3	56	35	206	121	262	156	106	X			X	X	64	
HOUSTON No. 1	1097	4.0	5.6	25	18	122	84	147	102	45	X	X		X	X	22	66 202 65
HOUSTON No. 2	1400	3.4	5.7	37	22	155	108	191	131	61	X		X	X	X		
HOUSTON No. 3	1341	3.4	4.7	34	25	182	111	216	136	80	X	X		X	X		
HOUSTON No. 4	1311	3.7	5.2	31	23	148	98	179	121	58	X			X	X		51 36
HOUSTON No. 5	1514	3.1	4.8	37	28	192	127	229	155	73	X	X		X	X		
FT. WORTH	1277	4.0	5.7	62	44	222	128	284	172	111	X	X			X		
PHOENIX No. 1	1363	5.0	8.7	32	30	122	113	153	143	11	X	X		X	X		148 75 129
PHOENIX No. 2	1470	4.0	4.8	39	35	234	144	273	179	94	X	X		X	X		
PHOENIX No. 3	1451	4.5	5.5	36	31	198	112	234	143	92	X			X	X		
JACKSONVILLE	1169	3.4	3.7	45	41	181	135	225	176	49	X	X			X		86 8
SACRAMENTO	1379	4.0	5.7	49	35	67	41	116	75	40	X	X		X	X		
AVERAGE 14 Houses		1309	4.0	5.5	\$41	\$32	\$169	\$109	\$210	\$141	\$69						\$ 48
AVERAGE 40 Houses		1249	5.0	6.5	\$93	\$75	\$92	\$63	\$184	\$136	\$48					\$ 15	

All operating costs shown in this chart were estimated by Owens-Corning engineers on the basis of average US fuel and power rates. "Before" costs are predicated on

each house being built according to FHA's minimum property requirements. "After" figures are for the re-designed house with changes as indicated.



Japanese houses for America?

The biggest single "style trend" today—in fashions, movies, furniture, cameras and in houses—started in Japan.

Like many such periodic trends, this one is partly a fad. But unlike some of the fads of the past, Japanese design fits today's American house like a glove. Here are four major reasons why it does:

- Today's American house is getting to be a modular house, and the Japanese practically invented the building module.
- Today's American house often relies upon its structural patterns for decoration—and so does the traditional Japanese house, with its darkened post and beam frame.
- Today's American house has become more and more open in plan—just like the traditional Japanese house, which has long used sliding panels to open spaces to each other and to assure occasional privacy.
- Today's American house has become more and more oriented toward the outdoors—and the Japanese, of course, are past masters at indoor-outdoor living.

There are many other lessons that American architects and builders can learn from the Japanese: lessons about craftsmanship, about the use of materials, about lighting, about ventilation, about climate control in general. And lessons, too, about the relative importance of things—the relative importance of physical comfort and of esthetic enjoyment.

But there are also some matters of deep concern to Japanese house-builders in the

past and to Japanese architects today that do *not* apply to the American house. To cite just one example: the Japanese used no furniture in the Western sense, so that the floor was the sitting and sleeping surface—and *everything inside and outside the house was designed to be seen from a 2'-6" eye level*. It is important to recognize some of these non-applicable aspects of Japanese architecture, for if we use the Japanese house as a model we must learn to re-develop it to conform to our special ways of living.

The next eight pages are devoted to four Japanese houses: two built in California, one in Michigan and a traditional house recently completed in Japan itself.

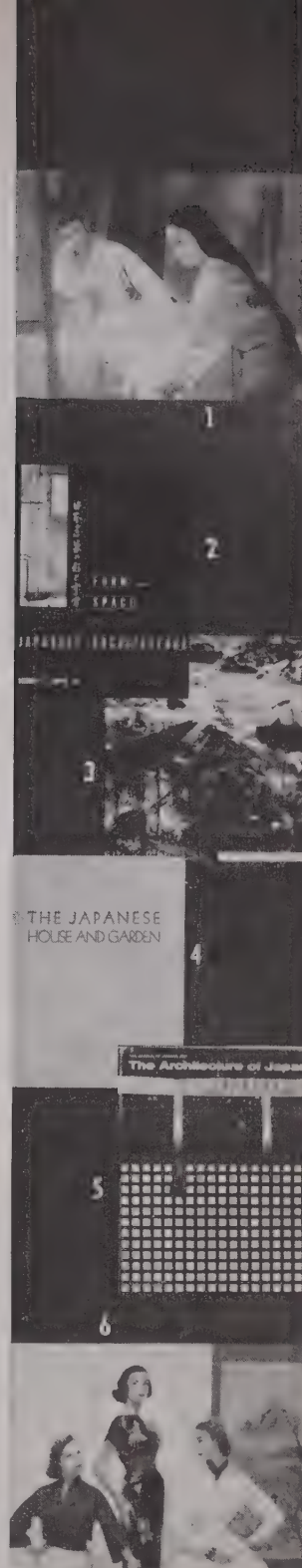
These houses show not only the adaptability of the Japanese idiom to the American scene; they show, also, some of the problems encountered in building Japanese houses in the US—and some of the ways in which a beautiful tradition can be made to work in today's world.

Some recent books on Japanese architecture available in the U. S.

The Architecture of Japan. Arthur Drexler. Illustrated. 286 pp. New York: The Museum of Modern Art. \$6.50.

Form and Space of Japanese Architecture. Norman F. Carver. Illustrated. 199 pp. Tokyo: Shokokusha. \$12.00. Wittenborn and Co.

The Japanese House and Garden. Tetsuro Yoshida. Translated by Marcus Sim. Illustrated. 203 pp. New York: Frederick R. Praeger. \$12.50.



Illustrations: Fig. 1 is a still photograph from the famous Japanese movie, "Gate of Hell," which had a long US run recently. Figs. 2, 3, 4 & 5 are the covers of recent US books on Japanese architecture, landscape design and Japanese life today. Fig. 6 shows Japanese-influenced US fashions (Photo: M. Shaw—LIFE). Opposite page: Detail from Katsura Imperial Villa, showing verandas raised 5' to 6' above ground. Continuous gravel strip around periphery of building is a dry well that carries off rainwater dripping from thatched roof (Photo: David Linton).



Stilt construction simplified excavation problems on steep hillside. Exterior panels of asbestos are 3'-6" wide, 6'-4" high.

One-room top floor apartment (below) has about 600 sq. ft. Metal fireplace recalls Japanese roof shapes rather than traditional braziers.

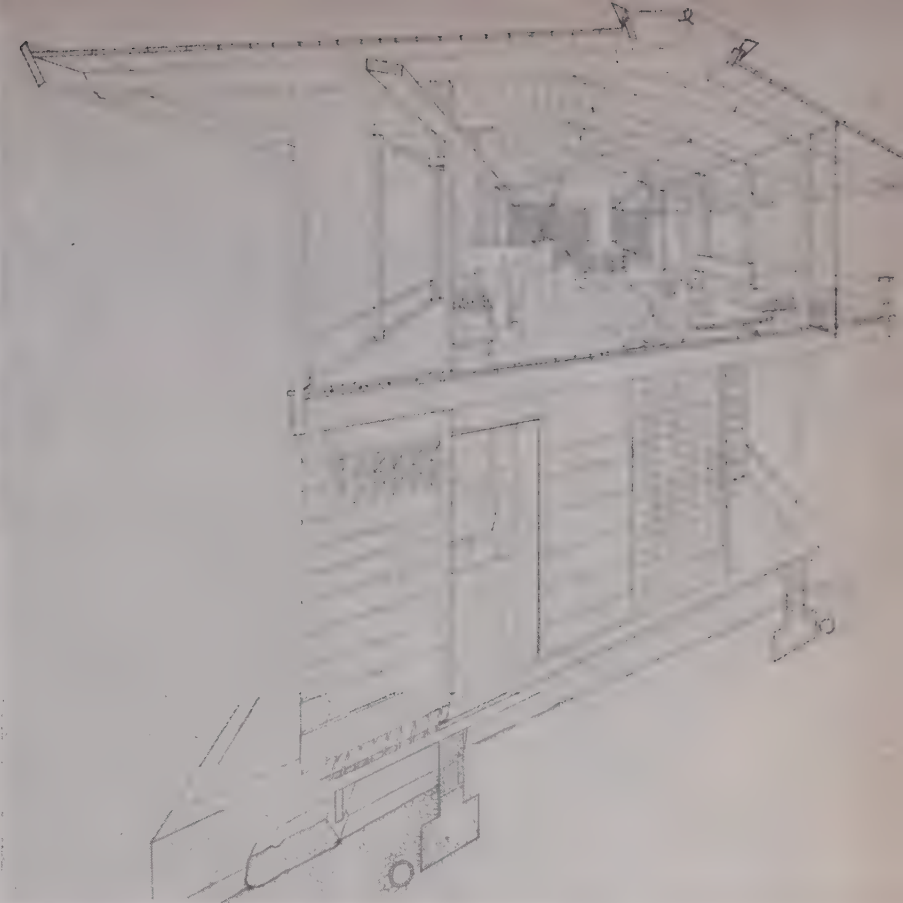




Downhill side of house is supported on long 6"x6" posts. Two levels have been oriented to face separate gardens, each on grade with its respective apartment.

Perspective section (right) shows neat roof structure made almost entirely of 4"x6"s. Wireglass skylight extends along entire ridge, illuminates upper floor. Metal flue penetrates skylight at end of this room.

Long wood slat decks (below) extend each floor, give access to gardens on uphill side of house. Fixed and sliding glass screens separate deck from living area.



Access to house (left) is from road 16' above, thus reveals roof shape—a flattened out version of the traditional Irimoya roof.

日本 Japanese House in the Bay Area

A traditional stilt-structure masters this steep hillside lot

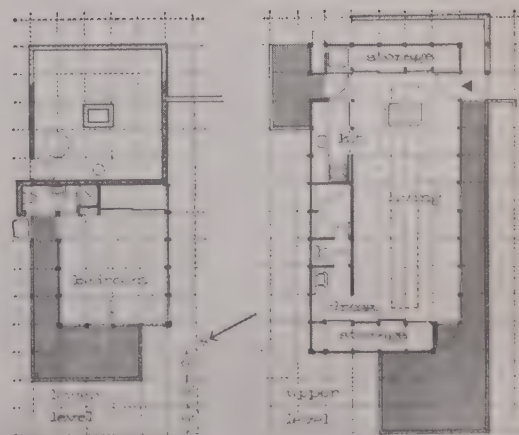
There are three ways of building a Japanese house in the US: you can build a straight copy; you can adapt the Japanese structure and module to US building techniques; or you can re-interpret the Japanese tradition and evolve an idiom all your own.

Architect Warren Callister chose the third way, and came up with this highly original solution.

Superficially, this house is Japanese in most of its details: in its roof shape, in its post-and-beam frame, in its sliding *shoji* and in its panelized exterior.

But Callister made one change that every Japanese architect would consider fundamental: he reduced the width of the basic module from 6' to 3'-6" to suit his program—a two-apartment house for two young women. Reason: he wanted to relate the building to what he calls their "feminine petiteness."

The result is a charming house in exquisite taste. Location: Berkeley, Calif. Architect: Charles Warren Callister. General Contractor: Vickery & Phillips.



Two-level plan shows smaller apartment downstairs. Retaining walls are reinforced block.



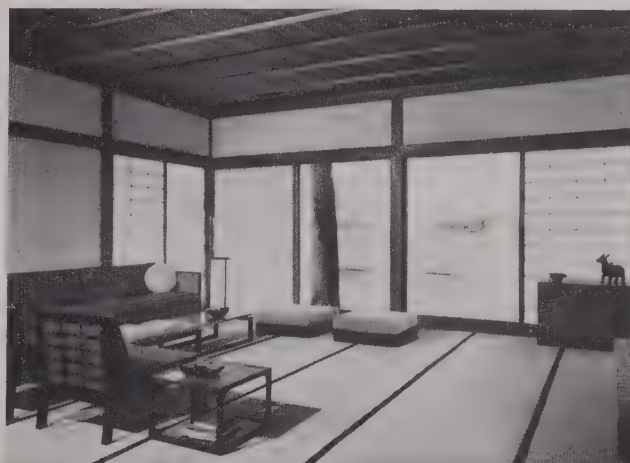
Typical Japanese garden entrance is roofed over, faces the road. House sits on posts which in turn rest on stones. Landscaping is still incomplete, may take years to finish properly.



Traditional Irimoya roof has small gable ends for ventilation. Shoji were faced with glass to protect rice paper against wind and rain.



Detail (right) at entrance to living area shows post with one side unplanned. This is traditional "post of honor." Fretwork grille above doorway appears throughout house above the 6' high continuous lintel.



Living room reflects modular design in floor mats and post-spacing. Only incongruous note: Western furniture rather than floor-seating. This changes proportions of interior.

Corridor in bedroom wing (left) shows sliding screens shielding the two smaller bedrooms. Continuous lintel 6' high, provides a useful structural division for walls and partitions.

日本 Japanese house in Michigan

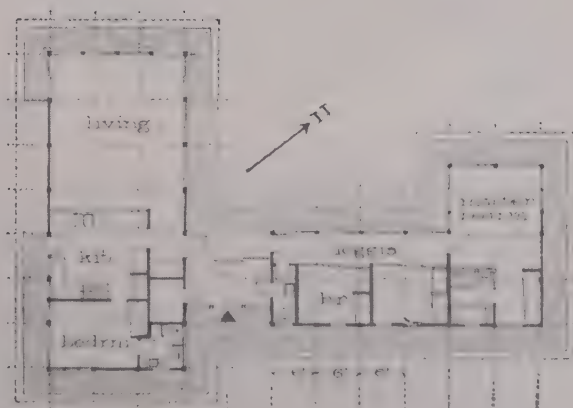
Furniture manufacturer Hollis Baker found the traditional idiom ideal for US summer living

Two things impressed Hollis Baker most forcibly when he saw his first Japanese houses at the end of World War II: the beauty of Japanese forms, spaces, structures and details; and the fact that the traditional Japanese house—as it stood—would hardly work in the climate of the American North.

At least not during the winter months; but Baker saw no reason why a slightly modified Japanese house would not make a lovely American summer cottage—open, airy, letting in sun and breezes. So he commissioned Architects Obryon & Knapp to go through dozens of books on Japanese architecture and develop a modern American summer house based on the traditions of Japan.

Result: an entirely American two-zone plan and an entirely Japanese structure. Sole concessions to US needs: insect screening—and an American kitchen.

Location: Lake Macatawa, Mich. Architects: Obryon & Knapp. General Contractor: R. A. Metzger. Photos: Holland Illustrative.



Two-zone plan is American but 6' module is Japanese. Note use of sliding screens in partitions and walls.



Walls of house are cantilevered 1 ft. beyond the foundations. Resulting shadow line gives sharp definition to the complete form of the house.

Projecting deck (right) at tree-top level rests on tall wooden posts anchored to footings on steep hillside. Abstract patterns on window wall are made up of stained glass.

Photos, Julius Shulman



Planting boxes are set between cantilevered floor beams. Split bamboo blinds outside glass protect against the south sun. Projecting deck can be seen in far distance.



Living room (right) has four-pointed roof-ceiling that is shaped like a folded paper hat. Simple to frame, the roof has four gable ends for lights and ventilation.

日本 Japanese house in Pasadena

And now the tradition has become part and parcel of the California scene

On the face of it, the house shown here is just another typical, handsome California home.

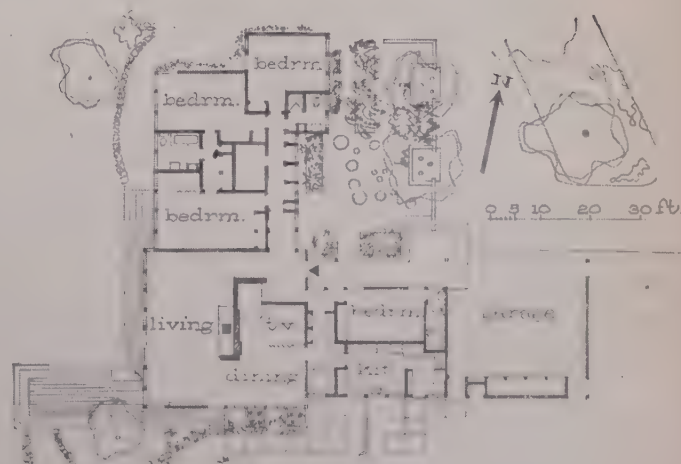
Which is quite true: for the Japanese house came to California 50 years ago—to stay. And in staying, it began to undergo definite changes.

Certainly, this house has a panelized exterior—but the module is 4' now instead of the old 6'. It is raised a little off the ground—but on foundations rather than posts. And it has deep overhangs—but neither roof shape nor pitch is traditional.

In short, this house is Japanese once or twice removed. It looks the way it does because of the work done in California by the Greenes and Maybeck around 1900, and because of the later work, in the '30s and '40s, by Californians like Harwell Harris.

And this sort of house is liked as well as it is because it speaks a simple, unpretentious language, rich in tradition and easy to understand.

Location: Pasadena, Calif. Architects: Smith & Williams. Landscape Architects: Eckbo, Royston & Williams. Contractor (& Owner): Robert Crowell.

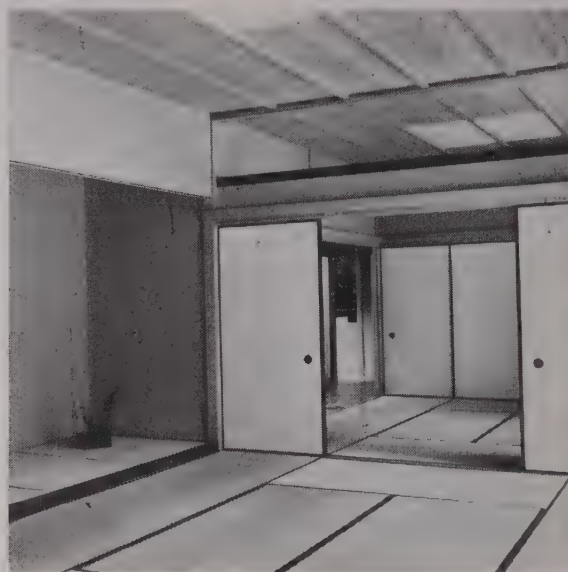


L-shaped plan is extended by handsomely landscaped outdoors areas. Site is very hilly, required complex grade-beams and caissons in the foundation work.



Photos, David Linton

Sliding screens (left) of glass and paper separate main living area from porch. All sliding units move on hardwood tracks.



Main living area is based on 3' x 6' module established by tatami floor mats and sliding screens.



Owner sits on floor mats, his eye-level about 2½' above floor. This height governs much of traditional Japanese design. Shoji screens slide horizontally, but each screen is also divided into halves that slide up and down just like our double-hung windows.

Living room (right) has table set over pit. Brazier fits into pit, and the family warms its feet by it.



日本 Traditional house in Japan

This new structure closely follows the rules of the past



Plan is articulated by structural posts, 3' x 6' tatami mats. All divisions are fixed or sliding screens of wood or paper. Narrow row of stones around periphery of house serves as continuous splash block to take rainwater dripping off the roof.

Isoya Yosida, architect of this traditional house, is considered the "Grand Old Man" of Japanese architecture. Here is a beautiful example of his work.

Yosida used the basic Japanese building module, the *ken*, which is about 6'. It governed the sizes of openings, the spacing of posts, the dimensions of sliding screens. It is most evident in the standard 3' x 6' *tatami* floor mats on which the Japanese sit and sleep. And it also establishes the low door-height with a heavy, continuous wood beam that runs around the periphery of most rooms 6' above the floor level.

The tile roof used by Yosida is also traditional: it is a combination of *Irimoya* roofs whose small gable ends can be used to ventilate the house. The covered porches that surround the main living area have sliding insect screens—perhaps the only real concession to modernity to be found in this house.



Like most Japanese houses, this one is raised on stilts to protect it from flooding. This device keeps the house dry, makes for more open foundations, and allows for better drainage.



Lagoons like this may solve

- Lagoons are the cheapest sewage treatment systems.
- They work where septic tanks won't, and cost even less.
- They are approved by health boards in nine states.
- They are being used in towns up to 10,000 population.

Sewage lagoons provide the same basic treatment as big municipal plants.

These lagoons reduce the waste through natural biological processes. They are the simplest form of sewage treatment system (the most complex is the common septic tank). The ponds are small, odor-free and safe.

Waste in lagoons is clarified when oxygen-charged bacteria break up sewage solids into gases. Green algae which grow in the lagoons produce the large amounts of oxygen needed by these *aerobic* bacteria. Lagoons differ from big treatment plants in that the latter supply the oxygen mechanically. (Septic tank bacteria are *anaerobic* and need little oxygen.)

In most cases, the treated sewage remains permanently in the lagoon. Overflow (which is harmless) follows the natural watershed. The amount of overflow (if any) depends on rainfall, evaporation rate and seepage into the ground.

These states have approved sewage lagoons: North Dakota, South Dakota, Montana, Wyoming, Nebraska, Missouri, Colorado, Kansas, Minnesota and Texas. The US Public Health Service is now testing raw sewage lagoons in Ohio, Mississippi and Missouri.

Most existing lagoon systems were designed for communities of 1,000 people or less, on the basis of one acre per 100 population. But it now seems clear that a lagoon will support more sewage per acre than was first thought. Experts are not agreed on the top figure per acre, but 300 is frequently cited as "conservative" for average climatic conditions. US Public Health Service tests aim at exact standards.

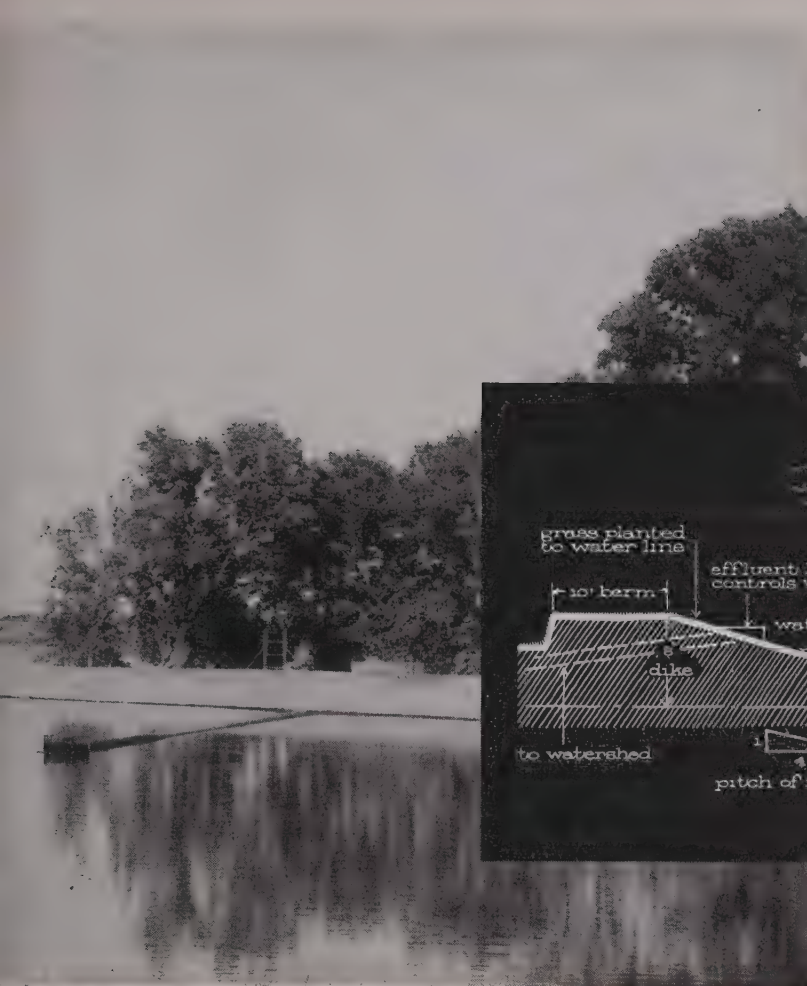
Lagoons now being used for a Kansas City suburb

The lagoon shown above is one of two five-acre tandem lagoons which have just been built to serve 900 new houses in Johnson County, Kans., a Kansas City suburb. They will serve a 3,500 population. (In North Dakota, one large lagoon serves a community of 10,000.)

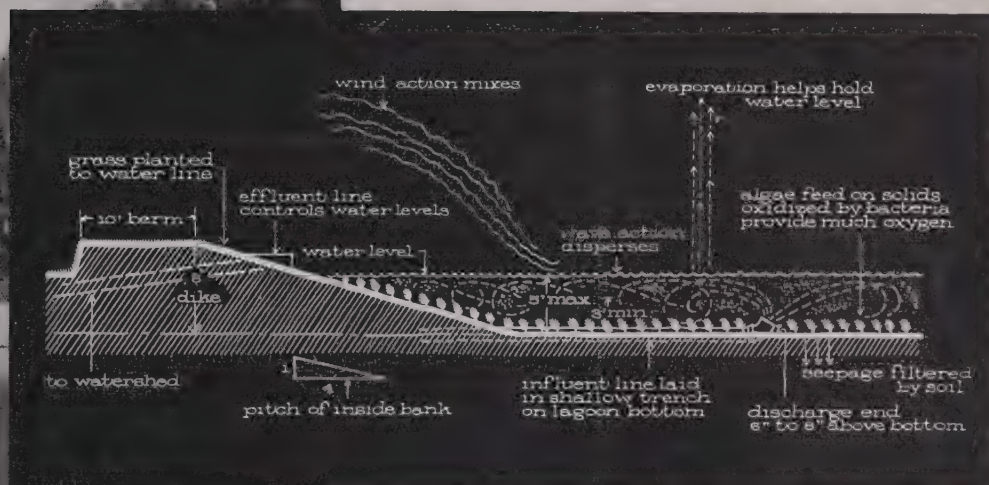
The Johnson County lagoon is the largest built in a suburb to date. A group of builders steered it past the opposition of other landowners, winning approval of county supervisors. The low-cost lagoon system opens up a total of 3,000 acres which otherwise would have required a large initial outlay for a plant. The lagoons will ultimately fit into a much larger disposal system. These permanent lagoons—and others to be added—will serve the first 10,000 new residents, and a treatment plant will be built to serve later arrivals. Thirty-four acres were bought for \$54,000 to take care of all expansion, and the entire 3,000 acres involved are already sewered.

Will lagoons work anywhere?

A US Public Health Service report by Glen J. Hopkins and Joe K. Neel states: "The midwestern states utilizing raw



Sewage lagoon in Kansas City (left) works like the one diagrammed below. Organic compounds and nitrogen—i.e., sewage solids—are broken up by oxygen-charged bacteria into carbon dioxide and nitrates. Algae, a simple water plant, feed on these and in turn emit oxygen needed by the aerobic bacteria to reduce the waste. Even when ice covers the lagoon, algae continue to live and supply oxygen to the bacteria. Lagoon at left is new, contains less than a foot of sewage, so influent pipeline at bottom of lagoon can be seen. (Drawing is based on data from the North Dakota Department of Health.)



your sewerage cost problem

sewage lagoons exhibit wide climatic variation. Average annual precipitation ranges from about 14" to more than 50". Average annual temperature ranges from 35° to 60°. The fact that lagoons of essentially similar design have performed satisfactorily over this wide climatic range argues well for the adaptability of biological processes involved."

Lagoons work well and give off no odor even in the Dakotas and Canada where ice covers them many months at a time. However, they work best where they get the most sunlight, for the algae are photosynthetic.

Do lagoons ever fail?

Yes. Two of North Dakota's 50 lagoons failed because they were built by mistake over gravel beds and would not hold their contents. Others have failed in Missouri when overloaded. And careless design has made some fail, as when the inflow pipe was not extended to the center of the lagoon for proper circulation. (Check your State Board of Health for specific design requirements which vary considerably from one state to another.)

What do lagoon systems cost?

Major cost factors are: excavation, topography, length of sewer lines and price of raw land.

Data from South Dakota's health department show an average per capita cost of \$16.28 for 15 lagoons serving from 367 to 2,871 people. Land cost averaged \$3,558 and

construction costs (including sewer lines) totaled \$14,385 per lagoon. For the three largest lagoons of about 30 acres each, serving 2,500 to 3,000 populations, per capita cost averaged \$13.51. But acreage accounted for only \$2.78 of this figure in this low-cost-land area.

North Dakota reports: "average costs with all necessary structures vary from \$10 to \$50 per capita." Here is the cost breakdown for lagoons serving 500 to 1,500 people:

Land	\$50 to \$200 per acre
Dirt moving	\$250-\$600 (20¢ per cu. yd.)
Lagoon influent line	\$200-\$700
Overflow outlets	\$100-\$400
Fencing	\$300-\$1,000
Seeding	\$100 per acre of dike
Pipelines	\$3,000-\$4,000 per 1,000 ft.
Pump station	\$7,000-\$13,000
Engineering fees	Vary locally
Bond costs	Vary locally

What about maintenance costs?

They are low. They involve mowing grass on dikes, keeping fence repaired, inspecting and repairing dike, pump station maintenance.

How long will a lagoon last?

No raw sewage lagoons were tried until about 30 years ago. But experts agree a properly designed lagoon will last as long as it is maintained and not overloaded. Some sludge will accumulate on the bottom of these shallow lagoons, but it would take over 100 years for this to build up one foot.



New block can even be used in the wall of an east bedroom (photo, left) because it lets in only soft light. Block's subdued quality adds nicely to house's pleasant appearance. Plan (right) indicates the many places, throughout the house, where block was used.

The new glass block in this test house



The special design of this new glass block (photo, left) lets it select the light that will pass through it, so it bounces back hot summer sun at the same time it picks up reflected ground light.

It can do this because the inside faces of the block are broken into prisms. These prisms transmit, bend or reject light rays according to the angle at which the rays hit the glass (diagrams, left). Sunlight and heat rays at the 45° band (A) are reflected back without entering the block. Above and below this intense band—from 35° to 60°—acceptance of light gradually increases and is nearly complete for "cool" ground light (B). Skylight above and below 45° is accepted, but in lesser degree.

Sunlight usually enters houses in concentrated streams, making windows a source of glare. This produces a contrast between light and dark areas within the house, a contrast that is very hard on the eyes. With the new glass block, entering light rays are diffused and directed more generally throughout the rooms for a softer, more uniform illumination.

As photographs of this test house show, the new block also lends itself to successful design treatment.

Location: Ann Arbor, Mich. Daylight research consultant: Dr. R. A. Boyd, University of Michigan. Architect: Harris Armstrong. Owners: Dr. and Mrs. Boyd.



Clerestory and skylights made of the new block bring living room illumination to 60 ft-c. A partial roof for the porch shades the big clear-glass windows. Rear of the lot is heavily wooded, and the trees are extra protection against low-angle sun rays.

lets in more sun light, less sun heat

Photos, Hedrich-Blessing



Kitchen (above), at west end of house, was photographed in natural light. With block in skylights as well as above work counter, brightness illumination ratio is 11 to 1 on a clear morning. Boyd says the ratio in most houses is 100 to 1, but should not be more than 15 to 1. (Light coming in should not be more than 15 times as bright as the natural level of indoor illumination.) **Study** (right) has no windows, gets at least 60 ft-c. of illumination from skylights, even on overcast day. Study's summer temperature averages 8° lower than outdoors.



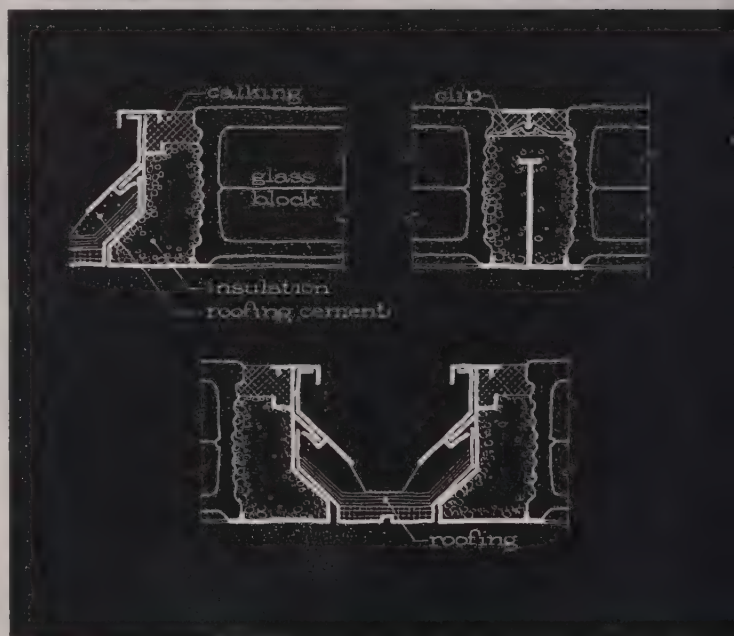
Prefabricated skylight projects only slightly above roof (photo and drawings, right). Manufacturer plans to have prefabricator-distributors across the country, since distance from distribution is a cost factor. Aside from shipping charges, present cost depends on the number of blocks in a panel. Example: for a 3' x 6' panel, cost averages \$125 (about \$7 a sq. ft.). The wall block costs about \$2 each, is installed by mason. Skylight panel can be installed by roofer.

Since skylights transmit low angle sun rays, a solar heat gain is expected in winter. The test house was occupied for only a few months last winter, but even then circulating pumps for the heating system were inactive for 5-6 hours a day.

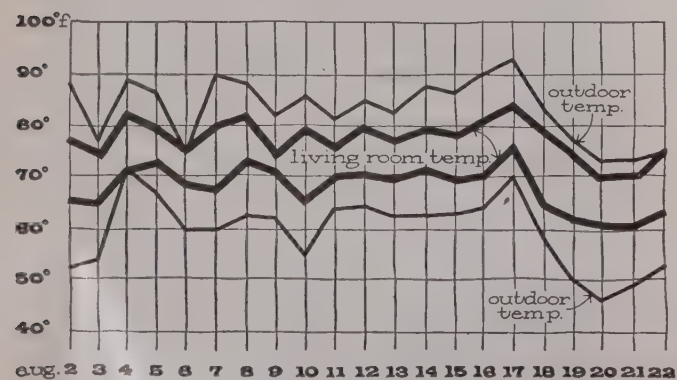
These blocks have a solid piece of glass fiber through the center, which by dividing them into two separate air chambers aids in slowing down temperature changes.



The new block is used in skylights to slow down heat gain and bring extra light to inside rooms



Skylights were used throughout the test house, and in some rooms (photo, lower right) were the only source of daylight. Most skylights admit too much heat, and with no air conditioning in the house, comfortable temperatures depend on control of heat gains. The new glass block was used in the house's many skylights to reduce the amount of heat admitted during the day and lost at night.



As the above graph shows, August temperatures in the living room of the test house vary much less than outdoor temperatures. The living room's high temperature averaged 6° lower than outdoors, but its low point was 9.5° warmer.

Figures for inside bath, kitchen and study were not carried through the month, but they also show that indoor temperatures did not vary as much as those outdoors. This new block transmits 75% less heat than ordinary clear glass block.





Armstrong Embossed Inlaid Linoleum in this exclusive 3-dimensional flagstone pattern is a perfect choice for the outdoor look. Install it in a model home and see how it impresses prospects. You'll be impressed, too, when you find out how remarkably easy it is to keep clean, even during a busy week end when the traffic of prospective buyers is heaviest.

"outdoor look" indoors

A handsome example of the "outdoor look" indoors—Armstrong Embossed Inlaid Linoleum—Style No. 5321.



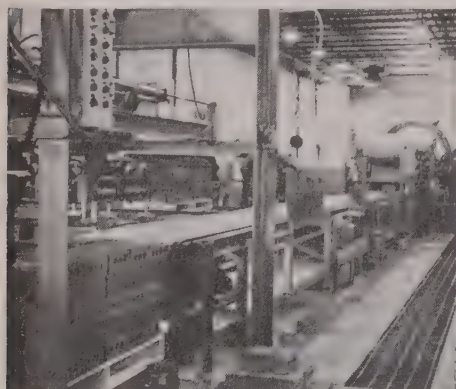
Coming: Packaged brick

New machine can wrap up to 100,000 bricks a day in easy-to-handle packages, should cut builders' cost over \$100 per house

Building brick will soon be packaged and shipped in "neat little bundles."

Packaging will be by means of a revolutionary new machine developed and now being tested by the Structural Clay Products Research Foundation.

The machine can handle up to 100,000 raw bricks a day, automatically strapping



Brick packaging machine handles 100,000 brick a day, will sharply reduce the high cost of shipping and handling. Machine takes raw brick from kiln, puts them on conveyor belt for packaging.

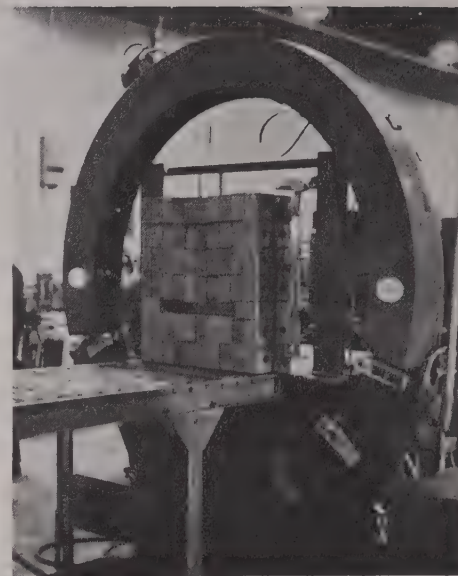
them in 62-unit packages with a minimum of plant labor.

On-site savings. Easier, faster handling will make the packaged brick cheaper to ship, and most important, on-site labor costs should be sharply reduced.

SCP Research Director Bob Taylor says savings may run more than \$18 per 1,000 brick. This would save over \$100 on the 6,000 to 7,000 units used for the typical brick veneer house. These figures are based on trial use of packaged brick by a Midwestern builder.

Taylor explains that big on-site savings are expected because the individual packages were specially designed for easy handling. They can be quickly unloaded at the builder's site. Each is light enough to be easily put on a hand truck and taken right to the mason at the wall. He just cuts the strips and lays up the bricks.

Taylor disclosed details on the new machine at a masonry conference in Washington sponsored by the Building Advisory Board. But he cautioned that the first pilot model is still being tested. It may be a few years before the machine is in use by most brick yards.



Pallet of 62 packaged brick comes off conveyor, as shown above. Pallets are easily shipped with no need for hand labor until deposited on site next to mason, who only cuts straps before laying up brick. Estimated on-site labor savings: \$18 per 1,000 brick.

What colors do most people want in their homes?

Today's taste favors light, clear pastels for home interiors.

People want pastel shades of yellow, coral, aqua, blue and wood tones, according to the latest report on the 14 best-selling colors used in US homes.

Builders and architects will do well to study the findings, since they reflect the sales of more than 150 paint makers (who sell through some 12,000 retailers) for the first six months of 1956. The best sellers line up this way:

- | | |
|---------------|------------------|
| 1 Yellow | 8 Coral pink |
| 2 Light brown | 9 Pastel pink |
| 3 Coral | 10 Heather pink |
| 4 Aqua | 11 Sandalwood |
| 5 Blue-green | 12 Golden yellow |
| 6 Blue | 13 Sand |
| 7 French blue | 14 Green |

This ranking may contain some exotic names but that is what people ask for, says The California Ink Co., compiler of the list and biggest producer of the basic colorants used by the paint industry.

Upward trends. The new list shows some colors riding an upward trend while others are losing public acceptance.

Rising fastest in popularity are light brown and aqua, No.'s 2 and 4, both 1956 newcomers to the best-seller list. Also significant is the increased sale of pink; three pink shades made the list for the first time. Only one pink has ever made it before.

Downward trends. People are losing interest in deep, bold colors. Slipping in popu-

larity are blue-green and green, No.'s 5 and 14. Both were formerly at or near the top. And such past favorites as gray-green and yellow-green have taken a nosedive in popularity, these two no longer being on the list.

The report also tells of "some of the fanciest hair-splitting ever indulged in by American women," says California Ink's President, W. H. Brandes. He cites two blues as an example. They look virtually the same to the unpracticed eye. Demand for one, a clean pastel blue, is shooting upward. Interest in the other, "a pleasing dusty blue," has fallen off sharply. The same thing is happening in aquas, corals, and yellows, Brandes says. His conclusion: "The clean, clear colors are taking over."

'56 room cooler sales hit record 1.5 million mark

Last summer's weather may have been cooler than normal, but this did not stop room cooler sales from climbing to record levels.

Retail sales of room coolers hit the 1.5 million mark, which is 200,000 above 1955 sales, according to the Air Conditioning and Refrigeration Institute. The ARI adds that about eight out of ten of all units sold go into houses or apartments.

Room coolers are now the nation's fifth fastest selling major appliance (after washers, refrigerators, ranges and driers), and are ahead of freezers (about one million estimated sales this year) and automatic dishwashers (about 300,000).

How cool should an air-conditioned house be?

Most people require an indoor temperature range of 73°-77° F. for thermal comfort, regardless of outdoor weather.

After recent research, the University of Illinois College of Medicine finds that humidity is of secondary importance in air-conditioned houses. In fact, says Pro-



FAHNESTOCK

fessor M. K. Fahnestock*, it has been "greatly overemphasized." If the house air is kept between 73° and 77°, relative humidity can range anywhere from 25% to 60% without human discomfort. Humidity is a major comfort factor only

when the temperature climbs above 80°.

These findings, Fahnestock says, have been confirmed by both laboratory and field tests in various regions of the US. (They are further borne out by the Austin, Texas Air Conditioned Village research.) (See H&H, July '56.)

Fahnestock also emphasizes that the 73° to 77° comfort zone applies year-round. This means builders must design heating systems to maintain at least 75°, rather than the 70° design standard used by many. Conversely, home cooling must be designed to maintain 75° in summer rather than the usual 80°.

*Chairman of the University's Physical Environment Unit at Urbana and top authority on comfort.

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Copper can take it, yes... winds, weather, the salt air and the salt spray... but let's not give copper all the credit; proper installation had a lot to do with this performance, too. So, for a trouble-free flashing job, first specify or use easy-to-work, non-rusting, long-lasting Revere Copper; second, make sure it's properly installed.

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W. F. B. KOELLE
ARCHITECT
122 So. 17th Street
PHILA.

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230 Park Avenue
New York 17, New York

June 1, 1956

Dear Sirs:

In answer to your question as to why I selected Revere sheet copper for all gutters, eaves, valleys, flashing and conductors on The Home of the Century in 1936, I would like to explain my basic idea in designing and building this house.

My wish was to stimulate interest in building better homes. The Home of the Century is completely equipped with every convenience, and is beautifully decorated—for I wanted our visitors to know how comfortable and attractive a moderate priced home could be made, but this was not enough. The unseen parts of a house must be equally fine if the home is to be a place of happiness and freedom from care through the years. I always stress this point with our visitors.

I selected Revere copper for all exterior sheet metal construction because of Revere's experience as the oldest fabricator of metals in America. I am familiar with Revere's extensive research in sheet copper for building, and I know that there is no more imperishable material that can be used to seal a building against rain, snow, moisture and wind than Revere copper. The same holds true for the plumbing and piping, which are also of copper and brass.

Striking proof of the matchless performance of Revere copper is the way it has stood up in its exposed position on the Steel Pier through four hurricanes violent enough to tear the entire end of the Steel Pier beyond the house and the Brighton Hotel Solarium completely away. Still not a leak occurred in The Home of the Century. Four different manufacturers' roofs have been applied to the Home in the past twenty years, but the original Revere Copper valleys and flashings are still intact. This fully confirms my own confidence in the lifetime service of copper.

I believe these facts are important to all who expect to build.

Very truly yours,
William F. B. Koelle
William F. B. Koelle
Architect



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Columbus, Ga.	Mount Clemens, Mich.	Washington, D. C.
Columbus, O.	Newark, N. J.	White Plains, N. Y.
Dallas, Tex.	New Orleans, La.	Wilmington, Del.
Dayton, O.	Newport News, Va.	Winston-Salem, N. C.
Decatur, Ga.	New York, N. Y.	Winter Haven, Fla.
	Norfolk, Va.	

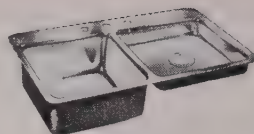
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A. Carlton sink for preparing vegetables, paring and rinsing fruit and salad greens, comes in three sizes. Regular bowl is 7¼" d., 32" l., 21" w. or 7¼" d., 37" l., 21" w. or 7¼" d., 42" l., 21" w. Shallow bowl is 3½" d. with same variations in length and width. Wide rounded corners make cleaning-up easy. In stainless steel. Carrollton Mfg. Co., Carrollton, Ohio.



B. Pressure switch for accordion-fold and sliding doors responds to less than 14 oz. of pressure. Switch mechanism is made of silver alloy; adjustable plunger is designed to make up for minor variations in installation. Switch box is 2 11/16" x 1 13/8" x 1 1/2". Cover is 4 1/32" x 1 33/64". 6 amps. 125 v. switch. Pass & Seymour, Inc., Syracuse, N. Y.



C. Omark Hammer Drive is used for light fastening to concrete, masonry, cinder block and mild steel. Drivepin is inserted into barrel of plastic-covered steel tool body. Plastic washer holds pin steady. Driving ram is pushed into barrel from top of tool which is held securely against concrete while a few hammer blows on driving ram force drivepin into concrete. Plastic washer disintegrates at last blow to leave a clean fastening. Tool kit assembly includes tool, headed and ¼ x 20 thread rams, kit box. Price: \$19.95. Omark Industries, Portland 22, Ore.



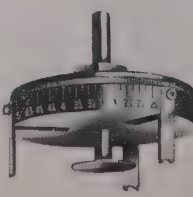
D. Rawl Drill hammer has 3 striking forces and an automatic clutch. When drill point contacts masonry, automatic clutch engages and hammering begins. Each revolution of the drill becomes one hammer blow. When drill point is taken away from masonry, hammer stops action. Turn collar on hammer to light, medium or heavy depending upon density of masonry. 2¾ lbs. Price: \$30. Rawlplug Co., New Rochelle, N. Y.



E. Bayonet saw cuts wood products, plastics, metals, tile, etc. up to 2" thick. Orbital action moves blade onto the work on the upstroke and backs it away 3/64" on the return stroke to eliminate drag. Saw is good for notching 2 x 4 studs for framing braces and ribbon cuts of the let-in type and angle cuttings for cut-in angle braces and fire stops. Porter-Cable Machine Co., Syracuse 8, N. Y.



F. Electric plaster groover is used to lay electrical conduit and metal tubing. It cuts grooves for under-plaster wiring tubing, cuts openings in plastered walls, rakes mortar joints, scores brick, tile, marble, stone. Universal motor operates on both AC and DC. Handle is designed for easy grip. 18" l., 16 lbs. With steel case and two 4 x 1/8" wheels, \$141.75 f.o.b. Wodack Electric Tool Corp., Chicago, Ill.



G. Dial saw cuts holes from 2¼" to 5" in diameter. To operate, turn calibrated dial to set steel cutter blades to diameter desired and you can cut metals, wood, plastics, etc. Each comes with two sets of ground and finished high-speed steel cutters. One set is 1½" l. for cutting wood; second set is 1¼" l. for metal work. Three shank types: ½" straight shank, ¾" straight shank or Morse #2 Taper shank. Robertson & Ruth, Elmhurst, Ill.

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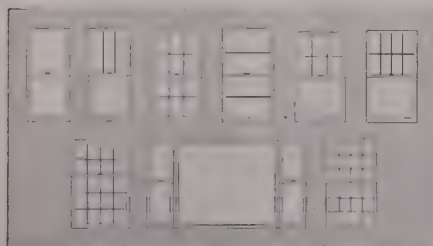


Read House, New Castle, Delaware, is English Georgian style, and is as fresh and fine today, as when it was first built.

Double Hung Wood Windows Lend Quiet Dignity to Read House



Relative inexpensiveness permits generous use of double hung wood windows with metal weatherstripping.



An endless variety of design can be achieved with double hung wood windows. They are easily shaped and their surface receives and holds any type of finish.

In 1791, George Read II, fifteen years after his father signed the Declaration of Independence, started to build Read House with bricks brought down the river from Philadelphia by barge.

Both exterior and interior of Read House are distinctive in design. It took ten years to build the house, but it was time well spent, for it has been lived in for the past hundred and forty-five years. A particularly pleasing effect was achieved through the use of double hung windows—house and windows “suit” each other perfectly.

Modern double hung wood windows, with spring sash balance and metal weatherstripping, mark their own contemporary advancement in home comfort and value. Second to none as to service, pleasure and satisfaction, neither time nor elements can impair their durability and efficiency.

Metal weatherstripped double hung wood windows eliminate six-sevenths of all air leakage. Savings in fuel costs alone can amount to approximately 24%.

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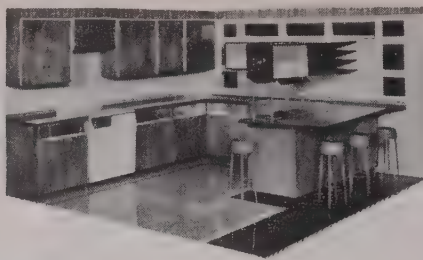
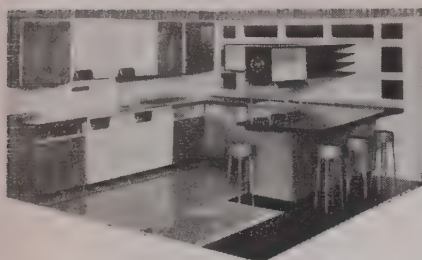


Photo (left) shows Westinghouse add-on refrigerator and freezer units with total capacity of 25 cu. ft. working off one refrigerating plant. Photo (right) shows minimum unit of 5 cu. ft. capacity at left and at its right, the element housing the refrigerating mechanism which also will deliver ice water, crushed ice and cubes. With wall and base units as separate compartments with individual temperature control, it is possible to have one or more compartments serve as freezers while others are refrigerators.

a. New refrigerator cabinets that can hang on the wall, fit under the counter, serve cold water, ice cubes or crushed ice—and give from 5'-25' of capacity are currently being tested by Westinghouse.

The cabinets, in modular sizes, are cooled by a forced air system and individual cabinet temperature can be controlled to make them either refrigerators or freezers. Air is forced from the cabinet housing a compressor through ducts into each of the other compartments. Using the new system, several cold storage cabinets could be spotted in the kitchen and even the dining area.

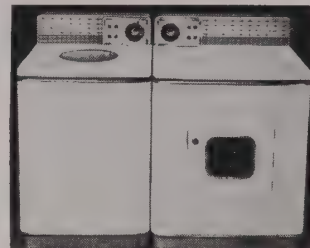
A new add-on principle means that you can start with a compressor unit and 5' refrigerator storage cabinet, add additional units up to 25 cu. ft. Compressor unit which will be used in every combination is 11" w. and counter height, sits on the floor. Two basic floor units are 5 and 9 cu. ft. A 6.5 cu. ft. transition unit with built-in duct work

can rest on any of the three floor pieces. Standard transition piece is 30" w. duct, 16" h., 3" d. Basic wall cabinet is 30" h. and w., 14" d. with 4.5 cu. ft. of space.

Company also announced a new plastic refrigerator that can be custom decorated, to match kitchen styling. A one-piece laminated three-layer sandwich forms basis of the new technique. Exterior skin can be any lightweight metal or sturdy plastic; inside skin is either polystyrene sheet or aluminum. Sandwich filler is 2½" of polystyrene foam insulation. Two pilot models for built-in use have 13 cu. ft. of capacity each, are designed for both vertical and horizontal installation. Exterior skin of these models is mixture of polyester and glass fabric. Complete new model, exclusive of steel or chrome trim, can be developed and put in production in less than two weeks, Westinghouse engineers claim. Priced about \$700, these new plastic models will be available Jan. 1.

b. Kelvinator washer and dryer have illuminated tops. Combined pair take up 55" of floor space, are 36" h.

Washer features a "Magic Minute" pre-treatment of soiled clothes which is part of washing cycle. Water flow in tub stops after several minutes and a non-reversing, eccentric agitator gives each load of clothes a full minute of pre-treatment in highly concentrated solution of detergent or soap; fins massage clothes to loosen soil. Washer WAG-6 is about \$289.95.



DEG-6 dryer with adjustable legs to level it to any floor is \$219.95. In pink, green or yellow at \$10 extra. Kelvinator Div., American Motors Corp., Detroit 32, Mich.

c. Steel basement window bucks for three window sizes—15" x 12" (2 light); 15" x 16" (2 light); 15" x 20" (2 light)—have inner and outer shells. Inner shell can be interchanged for use in 8", 10" and 12" walls. Shells are assembled on the job with steel or aluminum window, hung as a unit on the

continued on p. 192

CHESLER

Reddi-Mount

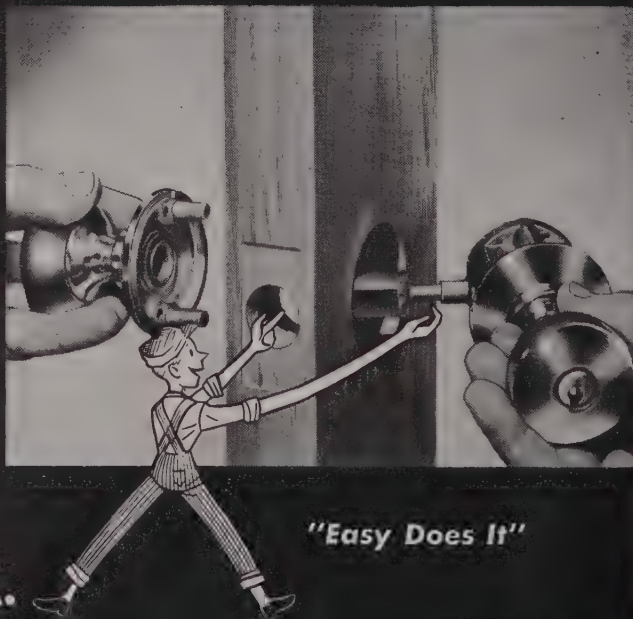
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*"Permalite plaster" or "Permalite concrete" mean plaster or concrete in which Permalite expanded perlite is used as the aggregate.

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Typical Drywall Application



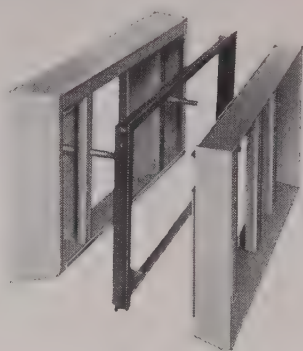
Here you see drywall being rehabilitated by
1/8" white finish plaster coat, bonded with
Plaster-Weld directly. No brown coat necessary.

The ability of Plaster-Weld (for bonding plaster) and Weld-Crete (for bonding concrete) to cut remodeling costs is today being demonstrated on all sorts of jobs being done by leading builders and architects all over the country. These two scientific, liquid bonding agents make it possible for you to permanently bond new plasters and cements to such surfaces as *concrete block ... brick ... stone ... slabs ... painted or unpainted surfaces ... wood ... concrete ceilings, beams, columns ... glass ... plastered walls and ceilings ... metal ... gypsum lath ... ceramics and many other surfaces.*

A Plaster-Weld or Weld-Crete bond never lets go! Both products have a consistency like paint ... are sprayed, brushed, or rolled directly on the old surface. No costly, time consuming surface preparation is required. Finish material may be put on over Plaster-Weld or Weld-Crete when touch dry (about 40 minutes) or as long as two months later. The permanent bond between old and new materials is far stronger than the materials being bonded. For complete technical information—and unlimited job proof—write us direct, or ask your Building Materials dealer. If you're an architect, see Sweet's AIA File No. 21F. Larsen Products Corporation, Box 5756J, Bethesda, Md.

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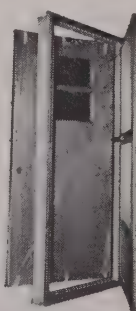
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outside plywood form. Bucks are used where foundation concrete is poured above window or where concrete is poured to top of window only. After concrete is set, remove bucks, re-use on next job. Gabriel Steel Co., Detroit.



d. Aluminum vertical sliding window has movable sash, each provided with two loaded spring locks, at right and left of the vent, for positive locking. UALCO Verti-Slide vents have approximately four positions of ventilator openings. Screens are designed to fit into screen channels, eliminating screen clips and screws; are attachable and removable from inside. Storm sash is interchangeable with screens. Verti-Slide comes with or without an integral fin, in many sizes. Price range from \$20.55-\$32.61. Southern Sash Sales & Supply Co., Inc., Sheffield, Ala.



e. Exterior door package comes wrapped in a transparent covering of Visqueen film and is ready for installation. You get inside and outside casing, finished and fitted exterior door, weatherstripped frame, sill and threshold and fitted aluminum combination storm door. Twenty-eight designs of lights and decorator trim are available; door comes in standard sizes. Prices vary depending on finish and cutout designs. E-Z-Dor, Continental Millwork Corp., South Bend, Ind.

Cut COSTS

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time with this...

Majestic

THULMAN

Fireplace

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Chimney

- No masonry, no mortar
- Realistic brick-finish top
- All clearances built in*
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A packaged fireplace and chimney for any mantel design, floor-level or raised-hearth installations! Requires no masonry—installs easily in new or existing homes up to two stories high. All steel and aluminum, with 8" stainless steel flue.



Triple-wall, ventilated Thulman design safely allows installation on wood floor, with ordinary framing directly against the casing and chimney, by UL test.

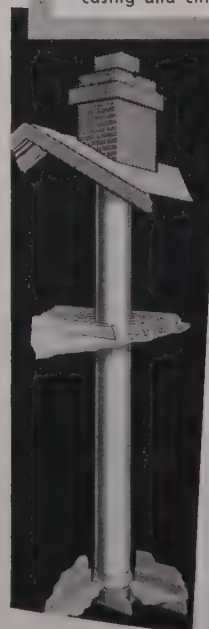
THULMAN Chimney

FOR HEATING
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The time-tested, UL-listed Thulman Chimney—in a 7" flue size for all fuels—has the same advantages as the fireplace chimney. Single or double top housings are furnished in embossed aluminum, shaped and painted for a true brick appearance.

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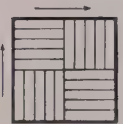


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Unexcelled Stability! Unique construction makes for tighter fit, because of patented design and assembly.

25/32" tongue and groove BondWood



Deep, Deep Beauty! Sawn for durability. Square edged slats, unbeveled. A full 5/16" of gleaming beauty—can be refinished countless times.



Easily Installed! Paperfaced 19" x 19" units of sixteen 4-3/4" squares. Laid in Mastic over concrete or wood subfloor.

Precision Swiss process sets pattern for home sales

Here's the flooring that can help you sell homes faster. Harris brings you Old World elegance, styled for today's modern living... a new method of lending a custom appearance to any home.

Prospects get excited over BondWood's patterned beauty... love its eye catching design... feel its warmth and richness.

BondWood truly sets the pattern for home sales. Why not profit from this sales-making flooring? Write today for color folder and name of nearest distributor.

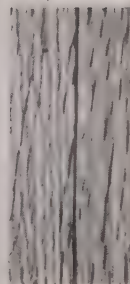
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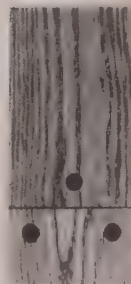
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our people to lend them—dollars that are now urgently needed at home.

We must reconsider our spending policies. The one best thing the Government can do to help people meet the urgent need for investment money is to cut its own spending. One of the first places to cut spending is the Government's own building programs, especially those building programs that are privately financed and so compete directly in the mortgage market.

This is not the time for the Government to be competing unnecessarily in the shortage market for building money, building labor, and building materials. Government should always try to do its building in slack times when Government spending is needed to sustain employment.

These and many other subjects should be included in the broad review of fiscal and monetary policy we have recommended.

SECTION III

The greater the upward price pressure the less new money the Fed can supply

Today's capital shortage is not a problem of money alone. It is a problem of money and prices.

If it were just a problem of money there would be many easy answers, for there are many easy ways to create more money. It is always easy to have easy money if we are willing to let easy money push prices up. We had no trouble getting money from 1945 to 1951 or from 1954 to early 1955 because in those years neither the Government nor the Federal Reserve was actively trying to halt inflation. We would have no trouble getting money now if we were willing to let inflation run on and on.

And here is a paradox of want in the midst of plenty.

Far more money is available for investment this year than ever before; yet money is tighter, more expensive, and harder to borrow than at any time in our generation.

The trouble is that money demand is shooting up far faster than the money supply.

For the past generation we have had almost continuous easy money, because investment demand was lagging behind the increase in savings. But for the next generation we may well have almost continuous tight money, because savings will find it hard indeed to keep pace with the enormous increase in investment demand due to three new forces:

- 1 The unprecedented rate of population growth.** In a single generation America is increasing its population by more than the total population of England, France, and Belgium combined. To house all these new Americans we must build the equivalent of a whole new city each year as big as Los Angeles and Philadelphia combined, complete with houses, schools, stores, churches, streets, power plants, water supplies and sewers. The investment demand for housing and community building alone will run well over \$25 billion a year.
- 2 The unprecedented rise in our standard of living.** In other lands (India, China,

Italy, Puerto Rico) the price of fast population growth has been paid in poorer living, with many people sharing just a little more food and wealth. But in America, where living standards double in every generation, we now propose to raise our standards faster than ever, raising the average family's income in constant dollars from \$4,440 in 1950 to over \$8,000 in 1980. Within a generation we propose to upgrade our way of life more than it has changed and risen in three centuries since Plymouth Rock. Such a 100% rise in our standards on top of a 50% rise in our population calls for a 200% increase in production. This 200% increase in production can be won only by a huge new investment in the means of production.

- 3 The unprecedented pressure for more pay for less work.** Every wage increase assumes a corresponding increase in productivity, but no one expects all that increased productivity to come from more and better work by the wage earner; on the contrary, many wage earners expect to work shorter hours for their higher pay. So the increased productivity can be achieved only through a huge investment in automation and labor-saving tools to let the worker produce more with less time and effort.

The pressure of more population, the pressure for higher living standards, the pressure for higher wages for shorter hours are just three of the many pressures contributing to what has been well called "the built-in inflation in our economy." There is not enough labor to do all the things we want to do. There are not enough materials. There are not enough dollars to pay for all we want to buy. Indeed, to provide out of savings the money everybody wants to borrow, "People would have to save at twice the rate of savings of 1955."*

The shortage of labor puts a tremendous upward pressure on the price of labor. The shortage of materials puts a tremendous upward pressure

* So says Mr. Carrol Shanks, President of the Prudential.

on the price of materials. The shortage of money puts a tremendous upward pressure on the price of money.

And here we come to a vicious circle.

The stronger the upward pressure on prices, the more restraints the Federal Reserve must apply on credit to curb inflation.

The more we leave the whole responsibility for keeping the dollar stable up to the Federal Reserve alone, the more restraints the Federal Reserve must apply to credit.

So just when the demand for more money is greatest the Federal Reserve is adding less dollars to the money supply than in any year since 1949.

SECTION IV

There is still a great social need for many millions of good new homes

Most of us think it is just as well that less houses are being built this year—

1 to let the market digest the hangover from the 1955 building spree induced by too-easy credit and no-no down payment financing;

2 to avoid bidding our costs up still higher and so pricing more houses out of the market;

3 to let builders adjust themselves to new market conditions and develop new sales appeals and selling methods to replace the too-easy financing that has sold so many houses since the war.

But

We view with some alarm the likelihood that housing starts will fall still lower and credit relief for home building may come too late.

The incubation period for housing is at least a year, so the good volume of starts in the first half of 1956 still reflected the easy money in late 1954 rather than the tight money of late 1955. This fall's fast sagging rate is the first real reflection of tight money; and

All of us think a deeper or long continued cut back in home building would be most unfortunate for three reasons:

1 Home building cannot be turned off and on overnight with the flow of money.

It would be all too easy to demobilize the industry and scatter its labor force.

The important fact about home building since the war is not that we have built 11,000,000 new homes and so ended the war-and-depression-born housing shortage. The important fact is that we have been transforming an ancient handicraft into a dynamic new industry capable of building much better houses with much greater efficiency and economy.

But this industry is still too new to hold together in the face of a long or deep cutback. Even if money were still abundant it would still have more than enough troubles adjusting itself to the new shortage of developed land, the growing problem of community facilities, the big change from a seller's to a buyer's market, and the urgent need to cut its costs. Already thousands of builders are quitting the business and breaking up their organizations.

2 Home building is one of America's most dynamic industries.

Home building, in fact, was the spark plug of post-war prosperity and the mainstay of many

other industries, for all the new houses called for new furniture, new appliances, new carpets, new streets, new schools, new churches.

Already the home building cutback has caused serious unemployment and discontent in the lumber industry.

3 The need of better housing is still great.

Thirty-five years ago Herbert Hoover joined in calling More and Better Housing "America's greatest social need." In the generation since 1921 the standard of housing has lagged still further behind the 100% rise in the rest of our standard of living. In fact, some critics think the American standard of housing is actually lower today than in 1929, for old houses have been falling into decay faster than we could build good new houses to replace them. Most of the old houses are still with us, 27 years older. We have built barely enough new houses to keep up with population growth—and most of them very small houses at that.

One-sixth of our non-farm housing inventory in 1950 still had no private inside bath, and because there are still nowhere near enough good houses to go around, millions of families are still forced to live in antiquated dwellings that should long ago have been torn down or completely made over. Those millions will have to go on living in sub-standard units until we build millions of good new homes over and above what we have to build to keep pace with population growth, for trade-up can never succeed until we have enough good housing to take all today's junkers off the market.

Close to 900,000 new homes are needed each year just to keep up with net new household formation (around 750,000 year), farm to city migration (around 75,000 a year), and demolitions incidental to fire losses, highway development, and store, factory, and apartment construction, etc. (probably another 75,000). So if we build 1,000,000 new homes a year we would have only 100,000 available to replace dilapidated and outworn units. At that rate it could take 80 years to get today's 8,000,000 sub-standard units off the market and 470 years to turn over our present housing inventory. If we build 1,100,000 units a year it could take 40 years to get today's junkers off the market and put replacement on a 235-year cycle.

Neither of these alternatives offers much hope of raising the standard of housing or providing anywhere near enough homes such as most Americans will want in 1980, when the median family income will be over \$8,000.

Save space
Beautifully
 ... with folding doors
 covered in
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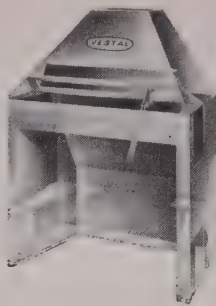
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Please send me the names of distributors in my area that
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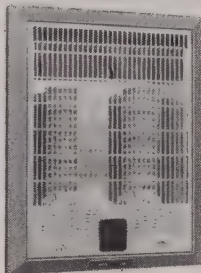
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New Products

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f. Vestal circulator fireplace has tapered sidewalls in the firebox to get maximum efficiency in heat control and circulation. High smoke dome fits directly into flue opening; square corners eliminate diagonal brick course. One-piece firebox is of 3/16" boilerplate, may be used as heart of modern or traditional fireplace, finished in brick, tile, stone or wood. Unit is shipped complete with glass-wool insulation for use between unit and surrounding construction. Louvered grilles conceal intake and outlet wall openings necessary for air circulation. Vestal Mfg. Co., Sweetwater, Tenn.



g. Raywall automatic electric heater can be surface mounted directly on concrete, cinder blocks or brick. Punch-out holes at bottom and back for screws or toggle bolts allow snug fit to wall. Thermostat and switch-off operate on one-knob control. High-grade nickel chromium resistant wire, supported by a ceramic stack, provides heating energy. Portable and junior surface-mounted models are available. Heaters operate on 220/240 v. with wattages from 1000-4000 and from 3413-13,652 Btu per hr. Tennessee Plastics, Inc., Johnson City, Tenn.



h. Meter Dome is a plastic housing for gas meters. Many localities require some cover for gas meters and this Fiberglas dome can meet local requirements easily. Dome, in tan for wall mounting, green for yard, is said to be rust-, corrosive-, weather-resistant, can take rough handling, is easy to put up. Reading window is Plexiglas 4" x 9 1/2", permanently sealed so it can't be removed from outside. Either wall or yard dome is roomy enough to hold iron or tin case meters up to 425 cu. ft. capacity. The Buckeye Supply Co., Zanesville, Ohio.

continued on p. 200

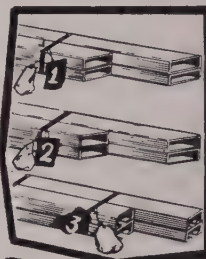
**EASIEST, FASTEST
 INSTALLATION!**

Glamour ALUMINUM SLIDING
 GLASS DOORS



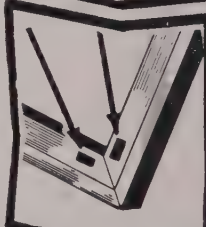
EXCLUSIVE ORGANIZED PACKING

3 separate packages in 1 master shipping carton. 1st contains stationary panel; 2nd has outer frame; 3rd holds sliding panel. Each package complete with own hardware and screws.



EXCLUSIVE ASSEMBLY COLOR CODES

Simply match the color coded corners placed on each part within each package.



EASIER TO GLAZE THAN A WINDOW

1. Remove aluminum bead.
2. Set Glamour vinyl channel around glass edge.
3. Place glass in door panels.
4. Replace aluminum bead.



**CUSTOM QUALITY at
 STANDARD PRICES**

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\$159.95
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SPECIAL BUILDERS PRICE,
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For single glazing. Thermopane and
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WE PAY FREIGHT TO YOUR SITE !

Available KD in multiples of 3' and 4' (6', 8', 9',
 12', 15', etc.) Overall opening height 6'-9 1/4".

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 please send me complete information and prices for
 GLAMOUR Aluminum Sliding Glass Doors. I am a
 _____ Architect _____ Builder _____ Distributor.

Name _____
 Company _____
 Address _____
 City _____ State _____



Builder: Bralei Homes, Inc.
North Little Rock, Arkansas

Consoweld was supplied by
Southland Building Products Co.

Bathroom wainscoting and
shower stall are covered with
Consoweld 10 Green Marble. This
and a number of other Consoweld
patterns were used.



View of Meadowcliff Addition to
Bralei Homes, Little Rock, Ark.

Consoweld on walls cuts costs, helps make homes more salable

Consoweld plastic laminate, well known for counter tops in kitchens and bathrooms, is also available in an extra-thick 1/10-inch panel, easily applied to vertical surfaces with Consoweld adhesives.

Saves Money; Applied over Inexpensive Undersurfacing

Consoweld 10 is applied directly over gypsum lath, sheathing-grade plywood, cement block or, in remodeling jobs, over old plaster. Consoweld 10 makes an excellent, colorful, durable wall surfacing. It is economical to apply, and its appeal to home buyers makes it a preferred material for walls in bathrooms, shower stalls, kitchens, playrooms, libraries, stores and offices.

Beautifies Kitchen Counters, Bathroom Walls

Consoweld was used extensively in bathrooms and kitchens in the 450-home Meadowcliff Addition in Little Rock, Arkansas, by Bralei Homes, North Little Rock. Builder J. B. Bracy employed a designer, and offered buyers a choice of most of the colors and patterns in the Consoweld line. As photos show, the installations are most attractive. The harmonious colors, smooth finish, obvious durability, and low maintenance of Consoweld appeal strongly to prospective home buyers and people planning to remodel.

Consoweld Is Easier to Sell

Color-tuned Consoweld patterns are preference-tested for consumer acceptance by Color Research Institute. Consoweld helps sell houses.

Full Line Available

Consoweld provides Consoweld 6—the standard 1/16-inch thickness; the extra-thick Consoweld 10; Curvatop—a preformed one-piece all-plastic laminate counter top that curves smoothly up into a 4¾-inch back-splash; Twin-Trim matched mouldings; and Consoweld adhesives. Get complete information—mail the coupon at right for literature.

"Twin-Trim" and "Curvatop" are Consoweld trademarks



Kitchen in one of Bralei's Meadowcliff Homes, showing
Consoweld Tan Irish Linen pattern on counter tops. Bralei offered buyers a choice of Consoweld patterns.

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Consoweld Corporation
Wisconsin Rapids, Wisconsin

HH-116

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Company _____

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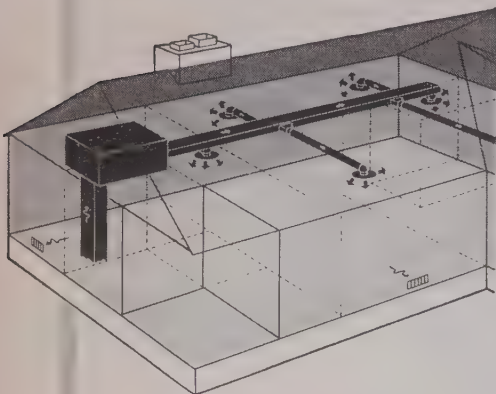
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Ranch House with attic furnace



and Kno-Draft Overhead Air Diffusers

Attic warm air heating and cooling systems are easiest to install, and give owners best results in terms of comfort and economy, when the room outlets are Kno-Draft Overhead Air Diffusers.

Kno-Draft Diffusers mix five parts of room air to every part of supply air within a few feet of the diffuser. This is more than twice the mixing the average grille can do, handling the same volume of air. Moreover, the mixing is well above the heads of room occupants—there are *no drafts*, temperature is uniform throughout the room.

Kno-Draft offers many other benefits to you and your customers. For full information, mail the coupon today. Connor Engineering Corporation, Danbury, Connecticut.

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Dept. F-116, Danbury, Connecticut

Please send, without obligation, Bulletin KH-76A describing Kno-Draft Air Diffusers for use with attic furnaces and other warm air heating units.

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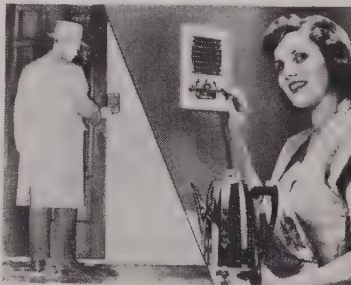
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Street _____

City _____ Zone _____ State _____



i. Germ killing paint is claimed to kill on contact bacteria or organisms which cause strep throat, nephritis, tonsillitis, typhoid fever, food poisoning, etc. First use will be in Jones-Blair's Satin-X vinyl latex wall paint, now to be marketed as Satin-X with APR (Anti-Patogenic Reagent). APR is an odorless, non-poisonous additive that creates a reaction in paint during the formation of paint film, will kill bacteria for two years or more, company says. APR was acquired by special franchise from Denton-Edwards, Ltd. of England, which has used APR for several years. Paint comes in 16 standard colors, 300 custom-colors. About \$5.85 per gal. Jones-Blair Paint Co., Dallas.



j. Home Teletalk system consists of a pair of two-way, flush-mounted units made of weatherproof brass. One is set into outside wall next to front door, has separate push button that connects with door bell, chimes or buzzer. Other speaker-microphone can be installed anywhere in the house. Additional installations up to 10 stations can be placed throughout the house so owner can answer front door from almost any room, listen in at nursery or sick room. Webster Electric Co., Racine, Wis.



k. All-steel garage is made for 1-car, 1½-car and 2-car sizes, comes equipped with sectional overhead type door with lock. Garage is packaged complete with hardware, fastenings and instructions for erecting. Design contrasts 8" galvanized and painted interlocking steel clapboard siding with vertical steel siding above eave line; 12" eave overhang on all four sides. Structural framework consists of steel nailing sections and formed steel channel members. For assembly, all members are either bolted or fastened together with self-tapping screws. Holes for bolts or screws are pre-drilled at factory. The Steelcraft Mfg. Co., Rossmyrne, Ohio.

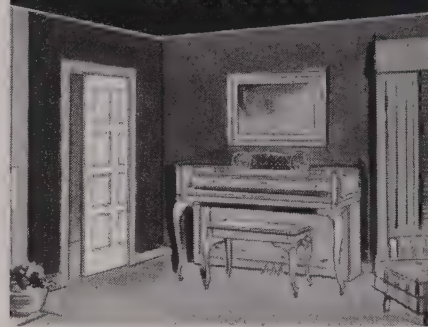
continued on p. 202

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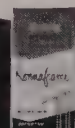
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John Severin (right) talks over plans for a new tract with Ray Nicholson of The Pacific Telephone and Telegraph Company.

"Our salesmen stress concealed telephone wiring"

— says Mr. John S. Severin of Severin Construction Company, San Diego, Cal.

"Concealed telephone wiring has become a competitive sales feature," says Mr. Severin. "More and more home buyers are asking for it. Our salesmen stress concealed wiring when talking to potential customers, and we play it up in our radio, TV and newspaper advertising.

"It's easy to understand why people want concealed telephone wiring. It preserves the inside beauty of a house, and it's in line with the modern trend towards built-in convenience. To me, concealed telephone wiring is one sign of a well planned and constructed house."

In thirty years as builders, Mr. Severin and

his brother Nels have built nearly 6000 homes, with hundreds more under construction at the moment. They are members of the N.A.H.B., the B.C.A. and many other professional organizations. In company with trend-minded builders across the country, they are convinced of the value of concealed telephone wiring as a quality sales feature.

. . .

Your nearest Bell Telephone business office will help you with concealed wiring plans. For details on home telephone wiring, see Sweet's Light Construction File, 8i/Be. For commercial installations, Sweet's Architectural File, 32a/Be.



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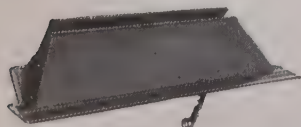
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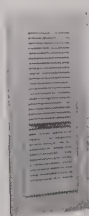
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l. New booster pump is claimed to maintain an adequate flow of water, even with low city water pressures. Ample-Flow pump has an air volume control that regulates and maintains correct air cushion in the tank. Close-coupled construction of pump is said to assure permanent alignment of rotating parts, eliminates coupling. A mechanical seal replaces conventional stuffing box; control valve prevents overloading motor, regulates water flow. Has 1/3 hp, 115 v. electric motor with built-in automatic overload protection. Price, \$117.50. Goulds Pumps, Seneca Falls, N. Y.



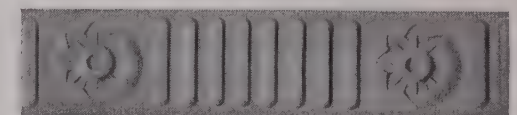
m. Oil-burning wall furnace, for houses up to 1500 sq. ft., has a heating capacity of 55,000 Btu per hour. Air blower with 600 cu. ft. per minute capacity circulates warm air. Louvered front door opens for service of unit. In cold climates, unit is convertible for a simple over-flow heater to a central underfloor heating system or to a combination over-floor—underfloor system, maker says. Heating efficiency can be stepped up by adding fiber duct for heat distribution underfloor to distant rooms while adjacent rooms are heated by direct over-floor air flow. Furnace panels fit in wall opening 60" h. x 25½" w. Automatic thermostat controls temperature. Internat'l. Oil Burner Co., St. Louis 10, Mo.



n. Cedar-lined closets like this one can be installed on assembly line techniques in many new houses. Closets in project homes are measured in advance so that all wood can be pre-cut before carpenter arrives on job. All carpenter does is nail cedar to inside walls, ceiling and inside of door, if wanted. Cedar lining can be applied directly over wall studs, plaster, etc. In new houses, company likes to use vapor barrier over studs on outside walls. The aromatic red cedar lining is produced in random lengths up to 8'. It is ¾" thick, comes in choice of widths from 2-4". Each piece is tongued or grooved on sides, edges. An 8' bundle contains 40 bf, enough to cover 30 sq. ft. of wall area. Short bundles of 4' lengths and 32" lengths also available. Aromatic Red Cedar Closet Lining Mfrs. Assn., Chicago.

continued on p. 206-B

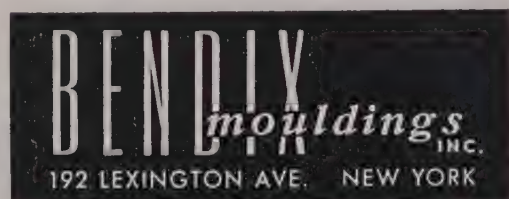
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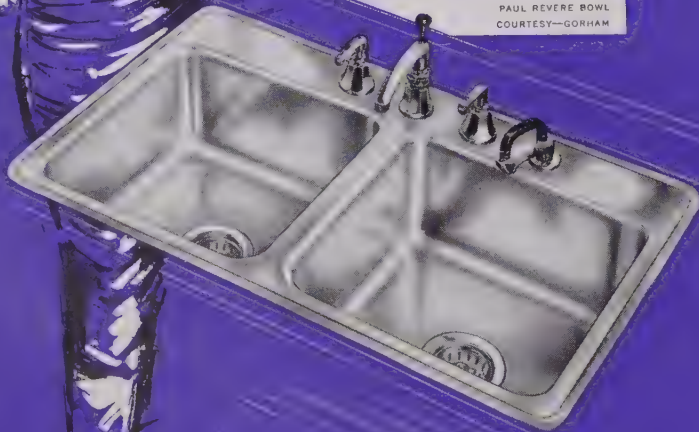
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1,800,000 PROSPECTIVE HOME OWNERS

will see this striking ELKAY ad during May and June. Present stainless steel sink prices are as low as cast iron... allow you to put this "prize" sink in every kitchen you build.



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STAINLESS STEEL SINKS

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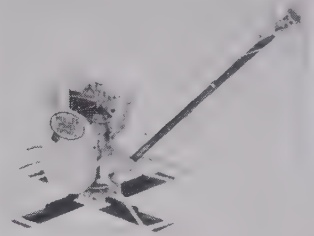
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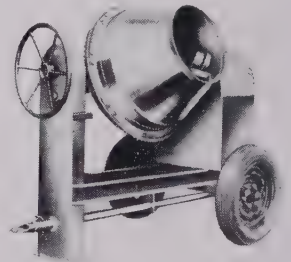
ELKAY MANUFACTURING COMPANY

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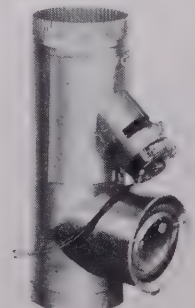
The World's Oldest and Largest Manufacturer of Stainless Steel Sinks... Since 1920



o. Muller power trowel uses four blades instead of the conventional three in 24", 29", 34" and 44" sizes. Vibration and lateral pull-away from the work are said to be reduced, as is operator fatigue. Trowels have Timken bearings to maintain accurate alignment of the worm drive. Blade adjustment, engine throttle and power throw-out are located at top of the handle, convenient to operator. Separate floating and finishing blades are standard equipment with all sizes. Muller Machinery Co., Inc., Metuchen, N. J.



p. Concrete mixer has a pressed steel mixing bowl with a smooth finish inside that facilitates cleaning. Bearing surfaces on the heavy yoke are fully machined. Yoke is supported at both ends in dirt and greaseproof sealed bearing carried in spherical self-aligning housings. Ring gear has 8 removable sections so replacement of a broken section takes but a few minutes. Model 35G has a 2½-3 hp air-cooled gas engine, a drum diameter of 30", depth of 31", opening 18". Over-all length is 72" x 48" w., 58" h. About \$495. F.O.B. Speedmatic Research and Equipment Corp., Pulaski, N. Y.



q. Shur-Flo draft inducer-regulator is used to inspire draft in a flue or chimney where natural draft is deficient. An inducer fan establishes draft and combustion efficiency is maintained by an automatic regulator. Shur-Flo unit is heavy gauge galvanized steel. The heavy-duty fractional hp motor is said to consume little current, and to require little oil or maintenance. Regulator and inducer fan are corrosion-resistant. Shur-Flo is available for pipe sizes 4" through 10". Walker Mfg. and Sales Corp., St. Joseph, Mo.

continued on p. 210

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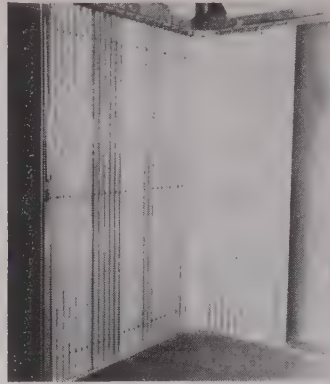
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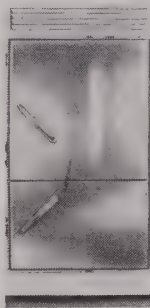
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r. Metal rolling door (wall type is shown above) requires minimum space as follows: 6" curve track radius in corner is used down a sidewall, 4" headroom. Optional widths available up to 18'. Roll-formed fluted design is said to make door more rigid. Spiral type installation requires 14" square section for spiral base. Both doors are available for either right or left side openings. Standard pin tumbler lock with two keys supplied already mounted in jamb on all exterior doors. Door opens easily, is suspended on adjustable monorail track with 50 ball bearings on a normal 8' door. Doors come pre-assembled in 12" sections ready for installation. Waddell Door Mfg. Co., Niles, Mich.

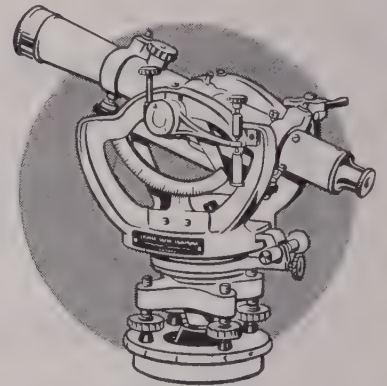


s. Built-in refrigerator-freezer is one-piece unit equipped with a rigid steel frame to hold it at correct height. Frame, welded to bottom of unit, also protects refrigerant tubing, providing air space surrounding hermetically sealed compressor. Eight-plus cu. ft. refrigerator is at eye level; freezer compartment stores 156 lbs. of frozen food, holds ice cubes. Separate controls allow refrigerator shut-off without affecting freezer. Unit is self-defrosting. Outside dimensions including hardware: 33" w. x 26 5/8" d. x 68 3/4" h. Grille is 33" w. x 6 1/4" h. Finish is antique copper enamel or stainless steel. Model RFC 601 with copper doors, chrome trim, right hand opening is \$797.95. Preway Inc., Wisconsin Rapids, Wis.

t. Water-repellent treated siding has recently been announced by Weyerhaeuser. Though it looks like the traditional product, the new siding undergoes a special treating process which lines the walls of the surface cells of wood with a water-repellent material and deposits chemicals in them to repel or destroy insects and organisms which may attack wood. The water-repellent treatment is said to improve paint performance since it absorbs less of paint oils and helps prevent blistering and peeling. Siding is available in both Western Red Cedar and West Coast Hemlock in bevel siding pattern 1/2 x 4" through 3/4 x 10". Weyerhaeuser Sales Co., St. Paul 1, Minn.



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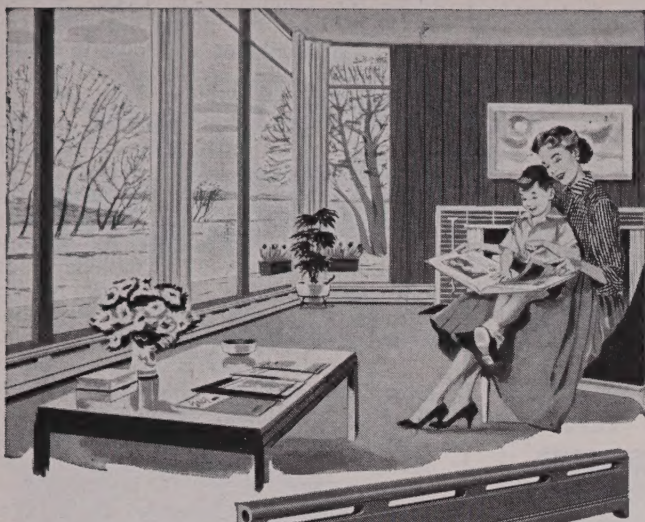
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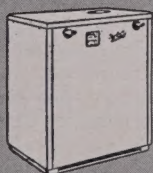


UPSTAIRS

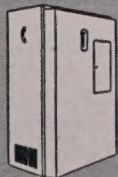
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DOWNSTAIRS



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PACEMAKER



PACE-PAK

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Name
Address
City State

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GLIDING WINDOWS

in their own homes... as
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narrow-faced deep sections,
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"invisible" hardware.

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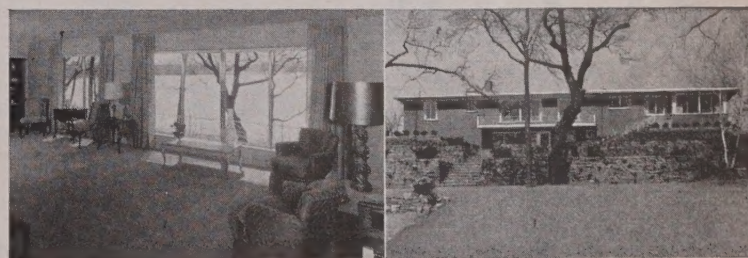
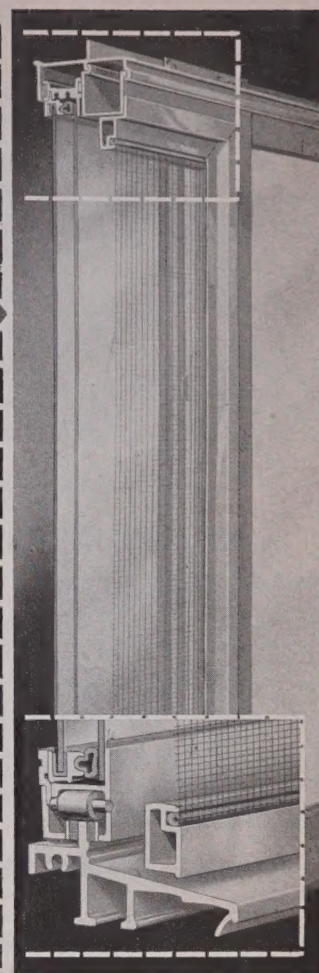
only 3 moving parts,
double-twin V-shape metal
interlock at meeting rail and jamb,
double I-beam construction
for maximum strength,
complete perimeter seal.

Quality...

double-glazed sections for full
1/2" insulation and sound proofing,
double-strength glass, rubber-cushion bumpers,
needle bearings on stainless-steel pins—brass housing,
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easy inside removal of panes and screen,
plaster returns, brick stops, built-in drip cap,
broad flanges, reversible fins.

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obvious at first glance,
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Increasing numbers of your profession specify **GLIDORAMA** Windows
AN ARCHITECTS' BROCHURE IS YOURS FOR THE ASKING!

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aluminum GLIDing windows with panORAMA views

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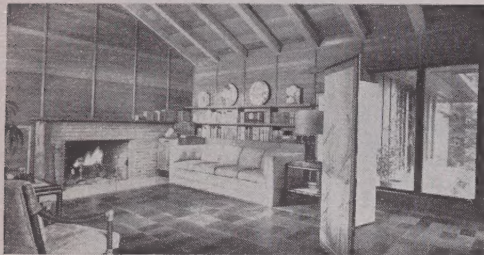
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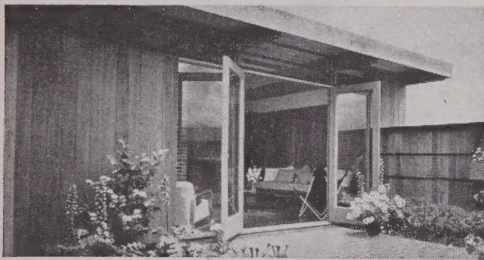
for further details check numbered coupon, p. 216

inside...



House in San Diego.
Architects: Mosher & Drew, La Jolla, Calif.
Finished with Cabot's Stain Wax

outside...



House in Carmel, Calif.
Designer: Gordon Drake, San Francisco
Stained with Cabot's Creosote Stain

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Cabot's Stain Finishes maintain the rich coloring of redwood... accent the lovely natural texture and grain... provide any desired effect. So, to beautify, preserve, maintain or restore redwood... specify

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*They are so easy to apply...
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Quality products from Cabot Laboratories
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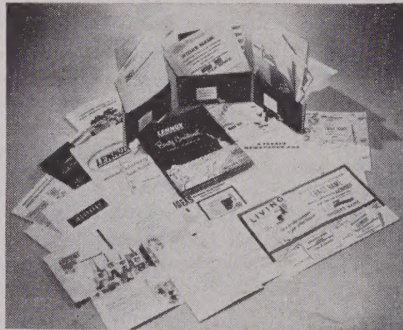
Please send your "Redwood Staining" Folder

MATERIALS

570. Azrock asphalt tile booklet. Uvalde Rock Asphalt Co., Dept. HH, Frost Bank Bldg., San Antonio, Tex. 4 pp. Specifications and illustrations in color of the complete line of Azrock tile.

EQUIPMENT

571. Decatur Pump Co., Dept. HH, Decatur, Ill. Three brochures. A trio of new little booklets describes the Burks line of pumps and water system. One tells how Burks Super-Turbine pumps operate. A second describes the company's HV-15 and HV-20 centrifugal pumps. A third book tells you what to look for in a water system.



572. The Lennox Beauty Conditioning Kit. Lennox Industries Inc., Dept. HH, Marshalltown, Ia.

Above you see a complete package of promotion materials which builders can use in an air conditioning campaign. Promotion is now under way in 35 house building markets throughout the country. The merchandising kits include pre-opening publicity, individualized tract brochures, merchandising aids, opening ceremonies and follow-up publicity.

573. The Donley heatsaver. The Donley Bros. Co., Dept. HH, 13902 Miles Ave., Cleveland 5, Ohio. 4 pp.

Folder describes recommended method of installing the Heatsaver, gives some charted figures of nominal sizes to conform to modular dimensions. Other pages show how warm air and cold air outlets are arranged, lists equipment necessary for installing the Heatsaver fireplace and shows you principal parts, tells how to order unit, accessories.

* Light for Living. General Electric, Dept. HH, Nela Park, Cleveland 12, Ohio. \$1.

An excellent big portfolio chock-full of books, booklets, sales ideas, lighting fixture guides, indoor and outdoor lighting ideas—all for the convenience of builders and architects. A builder's book of lighting, gives facts, ideas, economics. A handy little pocketbook tells how to decorate and light houses.

575. America's most advanced baseboard. A. Brown Products Corp., Dept. HH, Forest Hills, N. Y. 4 pp.

Description of a new baseboard cover that takes either the 1" or 3/4" tube. Brown Bayce-Heet twins installation details are given, plus a list of accessories and I-B-R steam and hot water ratings.

576. Plugmold baseboard. The Wiremold Co., Dept. HH, Hartford 10, Conn. 8 pp. 3-in-1 Plugmold is a combination base-

continued on p. 216

STATEMENT REQUIRED BY THE ACT OF AUGUST 24, 1912, AS AMENDED BY THE ACTS OF MARCH 3, 1933, AND JULY 2, 1946 (Title 39, United States Code, Section 233) showing the ownership, management, and circulation of House & Home published monthly at New York, N. Y., for October 1, 1956.

1. The names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, P. I. Prentice, 9 Rockefeller Plaza, New York, N. Y.; Editor, Henry R. Luce, 9 Rockefeller Plaza, New York, N. Y.; Managing Editor, Robert W. Chastaney, Jr., 9 Rockefeller Plaza, New York, N. Y.; Business Manager, Archibald Peabody, 9 Rockefeller Plaza, New York, N. Y.

2. That the owner is: Time Incorporated, Time and Life Building, New York 20, New York; that the names and addresses of stockholders owning or holding one per cent or more of total amount of stock are: Henry P. Davison, c/o J. P. Morgan & Company, P. O. Box 1266, New York, N. Y.; William V. Griffin, 20 Exchange Place, New York 5, N. Y.; Irving Trust Company, New York City, successor trustee under the will of Briton Hadden for the benefit of Elizabeth Busch Pool, c/o Irving Trust Company, Custodies Department, 1 Wall Street, New York 15, N. Y.; Margaret Zerbe Larsen, c/o Time Inc., Time & Life Building, Rockefeller Center, New York 20, N. Y.; Roy E. Larsen, c/o Time Inc., Time & Life Building, Rockefeller Center, New York 20, N. Y.; The Henry Luce Foundation Inc., 9 Rockefeller Plaza, New York 20, N. Y.; Samuel W. Meek, c/o Greenwich Trust Company, Greenwich, Conn.

Stock to the extent of more than one per cent is registered in the names of the following companies, but in each case the company is the nominee for a number of stockholders, no one of whom is known to own more than one per cent: Brown Brothers, Harriman & Company, 59 Wall Street, New York 5, N. Y.; J. C. Orr & Company, c/o New York Trust Company, Income Collection Department, 100 Broadway, New York 15, N. Y.

3. The known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: None.

4. Paragraphs 2 and 3 include, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting; also the statements in the two paragraphs show the affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner.

ARCHIBALD PEABODY,

Business Manager.

Sworn to and subscribed before me this 25th day of September, 1956.

CATHLEEN D. HARAN,

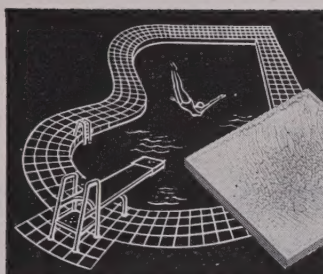
Notary Public, State of New York

(My commission expires
March 30, 1957)

[SEAL]

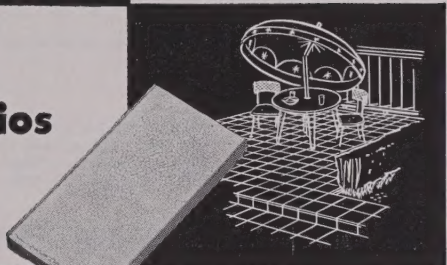
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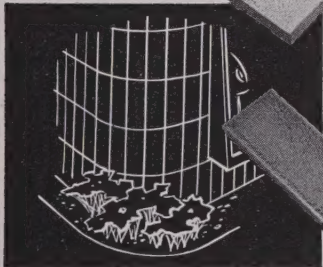


pools

patios



**distinctive
walls**



☐ Summitville Glazed Quarries have all the rugged characteristics of Quarry tile, long famous for unequalled strength and durability. To these inherent qualities, Summitville has added beautiful ceramic glazes in a wide variety of colors and textures.

The new glazed quarries are waterproof and frostproof which makes them especially adaptable to exterior use. Suggested applications for glazed quarries include light duty floors, patios, feature walls, counter tops, store fronts and swimming pools.

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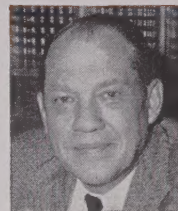


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Western Red Cedar Beveled Siding provides your homes with graceful pattern and natural beauty...easy, split-resistant, workability...dimensional stability and resistance to decay. Free of pitch, it takes and holds paints or stains better.



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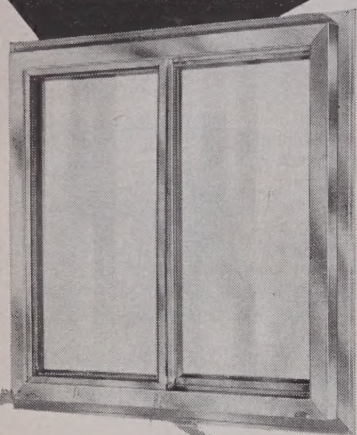
4403 WHITE-HENRY-STUART BUILDING, SEATTLE 1, WASHINGTON

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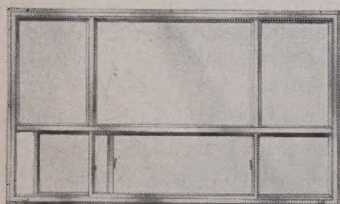
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An old and honored name in windows

board, multi-outlet system and metal race-way that gives duplex electrical outlets every 30" or 60" and has, within the race-way, capacity for extra circuits. Book shows how to order, install, depicts typical applications.

577. Aluminum lined fiber air duct. The Delta Co., Dept. HH, 333 W. 24th Place, Chicago, Ill. 1 p. This air duct is designed to reduce duct-work costs, simplify handling on the job, and give the upmost in heat distribution and flow. The body of the duct is constructed of plys of long jute fiber kraft. All plys are bonded with waterproof adhesive in addition to which the outer ply

is asphalt saturated. Result, company says, is an extremely strong, rigid and water resistant fiber air duct.

578. Barcol doorman. Barber-Colman Co., Dept. HH, Rockford, Ill. 4 pp. Remote control for garage doors and lights. This one gives maximum push-button convenience. You never get out of the car to open and close the garage door. All that's needed is to touch the button on the dash, garage doors open. Another touch as you go down the drive and the garage door closes and locks. Safety features include an instant reversing control and adjustable safety clutch with dash button that allows you to reverse the door if it should meet any obstacle.

PRODUCTS AND PUBLICATIONS COUPON

For more information on new products and publications in this November issue check key numbers below and mail to:

House & Home

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- A. Carrollton preparation sink.....☐
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- D. Rawlplug drill hammer.....☐
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- G. Robertson & Ruth dial saw.....☐
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- b. Kelvinator washer and dryer.....☐
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- d. Southern Sash Verti-Slide windows.....☐
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- g. Tennessee Raywall electric heater.....☐
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- i. Jones-Blair Satin-X paint.....☐
- j. Webster home teletalk.....☐
- k. Steelcraft all-steel garage.....☐
- l. Goulds booster pumps.....☐
- m. International wall furnace.....☐
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- o. Muller power trowel.....☐
- p. Speedmatic concrete mixer.....☐

- q. Walker Shur-Flo draft regulator.....☐
- r. Waddell rolling door.....☐
- s. Preway built-in refrigerator-freezer.....☐
- t. Weyerhaeuser treated siding.....☐

TECHNICAL PUBLICATIONS

- 570. Azrock asphalt tile booklet.....☐
- 571. Decatur Pump Burks pumps and water system.....☐
- 572. Lennox Industries air conditioning kit.....☐
- 573. Donley heatsaver.....☐
- 575. A Brown Products Most Advanced baseboard.....☐
- 576. Wiremold's Plugmold baseboard.....☐
- 577. Delta's aluminum lined fiber air duct.....☐
- 578. Barber-Colman garage door remote control.....☐

* For information about unlisted Technical Publications see below.

NAME _____

OCCUPATION _____ TITLE _____

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STREET _____

CITY _____ STATE _____

IMPORTANT:

House & Home's servicing of this coupon expires January 1, 1957

* Any inquiries with money or check enclosures must be addressed directly to the manufacturer.

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House & Home

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